

THE  
BRITISH JOURNAL  
OF  
PSYCHOLOGY  

---

MEDICAL SECTION

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Cambridge University Press

C. F. CLAY, Manager

LONDON : Fetter Lane, E.C. 4

also

H. K. LEWIS & Co., LTD., 136, Gower Street, London, W.C. 1

CHICAGO : The University of Chicago Press

(Agent for the United States and Canada)

BOMBAY, CALCUTTA, MADRAS : Macmillan and Co., Limited

TOKYO : The Maruzen-Kabushiki-Kaisha

*Price Ten Shillings net.*

# THE INTERNATIONAL JOURNAL OF PSYCHO-ANALYSIS

DIRECTED BY SIGM. FREUD

EDITED BY ERNEST JONES

*(President of the International Psycho-Analytical Association)*

WITH THE ASSISTANCE OF

DOUGLAS BRYAN, J. C. FLÜGEL (LONDON)

A. A. BRILL, H. W. FRINK, C. P. OBERNDORF (NEW YORK)

"The International Journal of Psycho-Analysis" takes the place for English speaking readers of the "Internationale Zeitschrift für Psychoanalyse" and "Imago," which are published in German only. An arrangement has been made whereby all the contents of these are freely available for the English Journal. Besides original articles, abstracts and reviews, it contains the Reports of the International Psycho-Analytical Association, of which it is, together with the "Zeitschrift" and "Imago," the Official Organ.

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THE INTERNATIONAL PSYCHO-ANALYTICAL PRESS

57 Weymouth Street, London, W.1

## AN EXPERIMENTAL STUDY OF THE MECHANISM OF HALLUCINATIONS<sup>1</sup>.

By MORTON PRINCE.

I ASSUME that the members of this Association are familiar with the traditional theories of the mechanism of hallucinations. I shall, therefore, not refer to them beyond remarking that they may be all classed under one or the other of two groups, viz. the anatomico-physiological theories and the psychological theories; and that all are inadequate and unsatisfactory. It remains therefore to attack the problem anew and, if possible, by experimental methods. We have open to us several methods of attack:

1. By inducing artificially hallucinations, particularly visions depicting known antecedent experiences. A study of their content permits of inferences regarding an underlying process related to the antecedent experiences.

2. Hypnotic methods by which through introspection memories of subconscious processes correlated with the hallucination are obtained.

3. Subconscious, or so-called automatic, script recording subconscious processes during a correlated hallucination.

4. A combination of all three methods.

### 1. Artificial Hallucinations.

I have made studies of a large number of artificial hallucinations in the course of many years experimentation and some twenty years ago published one such study<sup>2</sup>. They are commonly called 'crystal visions,' because the usual technique is to direct the attention by the use of a crystal into which the subject gazes (crystal gazing). A crystal of course is not essential. Merely fixing the attention with expectation of the development of the phenomenon is sufficient with susceptible subjects. An examination of the content of visualizations thus produced shows that they are identical in structure and action with many of the hallucinations of the insane as well as with the spontaneous hallucinations of the sane (Joan of Arc, Fra Angelico, Catherine of Sienna, Margaret Mary of the Sacred Heart, Arch-Duke Charles of Austria, *et alii*). They are

<sup>1</sup> Presented at the eleventh annual meeting of the American Psychopathological Association, Atlantic City, 11 June, 1921.

<sup>2</sup> "An Experimental Study of Visions," *Brain*, LXXXIV, Winter Number, 1898.

essentially and psychologically hallucinations artificially induced. (Parenthetically I may remark that it is an extraordinary thing that psychiatrists and psychologists have neglected them as objects of study, as plainly we have here phenomena that can be subjected to experimentation and are capable of giving an insight into the mechanisms of the mind and, as we shall see, into the relation of subconscious processes to conscious processes. One would expect that psychiatrists seeking to determine the mechanism of hallucinations of the insane would begin with artificial hallucinations and that psychologists interested in the problems of imagery would do the same.)

An examination of the content of the hallucinations thus induced reveals that they may be: (a) Visual memories, *i.e.* reproductions of past visual experiences; (b) visualized memories of past experiences that were not visual (*e.g.* of knowledge gained in other ways); (c) pure fabrications showing constructive imagination which may represent past thoughts (repressed or not), wishes, forebodings, etc., or attempts to solve problems and doubts, answer questions, etc. Further, when the visualizations are of persons *the thoughts of the vision-personality* (*i.e.* those underlying the hallucinations) *may emerge into consciousness*; and I may mention in passing that the *affect* pertaining to these thoughts or to elements in the hallucination often wells up into consciousness. (This is a phenomenon of importance bearing on the problem of moods or affectivity.)

More important for our present study, the behaviour of these hallucinations shows that an active process is going on that is not in awareness (*i.e.* is subconscious), but is inducing the visualization (*e.g.* when the hallucination has the action of a cinema picture, or represents in visual imagery past thoughts, and is not simply a reproduction or memory of a past visual experience). If we can find out what sort of a process it is, identify it, and discover its relation to the hallucination we shall advance a step towards solving the problem of hallucinations in the insane.

## 2. Hypnotic Methods (Coconscious Images).

There is another class of phenomena which I have called *coconscious* images. The finding of these came from hypnotic methods, *i.e.* introspection in hypnosis. They are as extraordinary as they are interesting, but I do not expect you to believe them until you have confirmed their reality by your own observations. My own findings have, however,



been confirmed by Dr G. A. Waterman in a case of his own<sup>1</sup>. I have found them, according to the evidence of the subjects, in four cases including that of Dr Waterman, who gave me an opportunity to examine his case.

Coconscious visual images may be defined as psychical images of which the individual is not aware and therefore which are subconscious. They occur as:

1. Phenomena of suggested post-hypnotic acts.
2. After phenomena of dreams.
3. After phenomena of repressed thoughts.
4. Phenomena of moods (depressed and exalted states).
5. Phenomena of perseveration of previous emotional complexes (mental systems).
6. Phenomena in the mechanism of hallucinations.

Because of the behaviour of the phenomena in the last class they belong to this study. As phenomena of suggested post-hypnotic acts they permit of experimental induction and study. I have found that each step in such an act (in the cases studied) is preceded or accompanied by a subconscious image or picture corresponding to one of the elements of the act performed or to be performed. Such images occurring with repressed thoughts not in awareness are interesting from a psychological and psychopathological point of view. Sometimes these subconscious pictures are accompanied by an affect which alone emerges into consciousness, as with artificial hallucinations, and apparently determines the conscious mood<sup>2</sup>.

Now the point I am coming to is this: occasionally I have found that *one or more images emerge into consciousness and become a hallucination*.

This observation led me to postulate a theory of visual hallucinations, namely, that in certain instances at least *they were the emergence into awareness of imagery belonging to subconscious thought—the same sort of imagery that occurs in conscious thought*.

Auditory hallucinations, similarly, are the emergence of subconscious verbal 'images,' i.e. sounds of words used in subconscious inarticulate thought or internal speech.

<sup>1</sup> For a study of these phenomena see article by the writer, "Coconscious Images," *Journal Abnormal Psychology*, xii, No. 5, December 1917. (A report of Dr Waterman's observation is included in this article.) See also *The Unconscious*: Index, "Coconscious Images."

<sup>2</sup> I have discussed this important phenomenon in *The Unconscious*, chaps. xii, xiii, xvii; see also *The Dissociation of a Personality* for numerous observations.

### 3. Subconscious Script.

It remained, however, to prove this by a method not dependent upon hypnotic introspection and memory but by one that would reveal the subconscious thought and synchronously the corresponding hallucinatory images after emergence into consciousness; and the correlation of the two. For this purpose the following procedure was devised: (a) to induce experimentally subconscious processes; (b) to 'tap' the subconscious process while in progress and obtain physical records of it; (c) if any hallucinations occurred synchronously to obtain a detailed description of the same; (d) to correlate by comparison if possible the imagery of the hallucination with the ideas expressed in the written record of the subconscious process; and (e) to obtain immediate evidence by subconscious introspection of the relation, if any, between the elements of the subconscious process and the imagery of the hallucination and the mechanism of the same.

The technique of 'tapping' the subconscious process suited to the experiments and obtaining physical records of the same is subconscious writing, commonly called 'automatic writing.' (Here I may again venture a parenthetical remark: it is strange that psychologists and those engaged in psycho-pathological work have so utterly neglected the study of subconscious writing, both as a phenomenon and a mode of investigating the nature and potentialities of processes outside of awareness, and, I may add, of the dynamic structure and mechanism of the mind. The mechanism of this kind of writing still needs to be worked out as well as the relation of the process to the personal consciousness<sup>1</sup>.)

To carry out the proposed plan of investigation it was necessary to have a subject who both experiences hallucinations and can produce automatic (subconscious) script without awareness of what the hand is writing. (The latter is necessary because some automatic writers become aware of the content of the script as it is being written although it is subconsciously written in that they are not aware of what will be produced and do not voluntarily produce it.) I fortunately have a subject who answers these two conditions and who has been under my observation for about a year. She came to me as a patient for other reasons. I have therefore an intimate knowledge of her character and personality and can vouch for the bona fide nature of the phenomena themselves. She comes of a good, and at one time wealthy, American family and as

<sup>1</sup> This important phenomenon has been left to those interested in Psychical Research and spiritualism, who are concerned solely with the content of the writing and not with its psychology.

a young girl she was, I judge, rather luxuriously brought up: she possesses considerable artistic talent with pencil and brush and has an ambition to develop her voice for dramatic purposes. This is the ambition of her life. These facts are pertinent to an understanding of the content of the script and the hallucinations obtained. She produces automatic script with remarkable facility and has written what would make several volumes in this way, including two or three of fiction and a good deal of verse.

Now on several occasions she had casually remarked that often while she was automatically writing she had experienced visualizations and other hallucinatory phenomena which afterwards she discovered corresponded to the content of the script. Being interested in other aspects of the case I had merely made a note of the fact at the time without further attention. Later, when I took up the question of hallucinations for study it occurred to me at once that here I had just the subject I wanted at hand. The conditions of the experiments were arranged as follows:

The head of the subject was covered with an opaque cloth to prevent her seeing the script as it was being written automatically by her hand. A pencil was then put into her hand which rested conveniently on a sheet of paper placed on a writing tablet by her side. She was then told to write automatically regarding some subject which I designated in general terms in each experiment: for instance, a memory of some remembered episode in her life, a memory of such an episode but one forgotten by the subject; a fantasy; a fabrication requiring constructive imagination, etc. The object of diversifying the subjects was to obtain products of different kinds of subconscious work (memory, dream-like fantasy, imagination, etc.). If, during the experiment, while the hand was writing, a hallucination developed, the subject was directed to indicate the fact the moment she saw it by exclaiming 'picture.' Thereupon I made a mark on the script at the point where the picture appeared. Likewise the moment the hallucination disappeared the subject exclaimed, as directed, 'gone,' and the point was similarly marked on the script. Thus those words of the script which were written during the occurrence of any given hallucination could be identified and could be compared with the latter and any correlation of the written ideas and the hallucinatory images noted.

In some cases as soon as the hallucination appeared the subject was required to describe orally the 'picture' in detail. This description was taken down by me verbatim. Two things, be it noted, were thus being

done by the subject at one and the same time; namely, writing with the hand one thing, of which she was not consciously aware, and describing orally and consciously another thing—two entirely different processes, one subconscious and the other conscious.

In other experiments the subject was not required to describe the details of the hallucination until after it had disappeared, but only to indicate its beginning and ending and its general character, such as of a person, or place, or thing—"a ship on the ocean"; "a street in a city," etc. As soon as it disappeared the writing was interrupted and the subject was required, while the memory was fresh, to describe the details of the hallucination. This having been done the writing was resumed and this procedure continued until the script was finished, when, as it happened, the hallucination always ceased. This method was found to be the most practical for reasons I will not go into because it would involve a lengthy discussion of the principles underlying the phenomena of subconscious writing.

After the observation was complete, the script and the hallucination as recorded were compared and for this purpose arranged in parallel columns. Thus any correlations between the imagery of a hallucination and the synchronously written script could easily be noted.

Finally, after each observation the method of *subconscious introspection* was used to elicit such evidence as might be obtainable as to what occurred subconsciously during the writing of the script and the hallucination, *i.e.* what was the character of the subconscious process that produced the script; what (if psychological) was its content; what, if any, psychical elements (such as images) of which the subject was not consciously aware were present; and what, if any, light could be thrown by subconscious introspection upon the relation of the subconscious process to the hallucination? Very positive introspective testimony as to the source of the imagery of the hallucinations and the relation of those images to the subconscious process was thus elicited. Its credibility must be judged according to the value assigned to the method. A summary of this evidence will be reported in its proper place, after the various scripts and their accompanying hallucinations have been given.

Before giving the results of the experiments the following facts in the psychological history of the case will enable you to understand the rather fantastic content of the text of some of the script and imagery. The subject had at a previous time exhibited the phenomenon of double personality and for this reason had been sent to me for study and readjustment. This phase of the case had been recovered from at the

time when the experiments were undertaken. During this previous phase one of the personalities called 'Juliana' had imagined as a fantasy that she was the reincarnated soul of a Spanish peasant girl of the thirteenth century and, after the fashion of secondary coconscious personalities of spiritualistic mediums (as in Flournoy's case of 'Hélène Smith'), imagined that she remembered her previous life as such a peasant. A most elaborate and extravagant romance of the thirteenth century had thus been fabricated beginning with her early girlhood as a rustic peasant and ending in her death in old age after many adventures as a street singer and finally as a great artist with a wonderful voice, having sung and danced before the King's Court and great audiences, one of which was gathered in the Coliseum in Rome. The genesis of this fantasy could be traced, I think, to the day dreams of the subject as a young girl and later to dreams under the influence of morphine during a serious illness. But as elements in it could be recognized, as motivating factors, her life's aspirations. As Juliana, a secondary coconscious personality and also an alternating personality (to whom 'Susie' used to change from time to time), she would play the part seriously and honestly of a Spanish girl, spoke broken English with a foreign accent, and also a supposititious Spanish dialect of the thirteenth century which, of course, was only a neologism (nicknamed by me the 'lingo'), and acted the part well.

After reintegration the subject consciously and coconsciously remembered in complete detail the so-called 'Spanish fantasy,' and, according to well known principles, the conserved subconscious systems could be 'tapped' and made to a degree, as artifacts, to manifest themselves as more or less temporarily dissociated autonomous systems.

In the cure, that is the reintegration of the two personalities into one normal one, the belief in all this fantasy, previously strongly held by Juliana and accepted by the other personality, was, of course, destroyed.

It need only be added that at the time when these observations were undertaken the subject, owing to reversals in the family fortunes, was obliged to earn her living and was employed in a large department store in which she rendered excellent service as a saleswoman. She regarded this, however, as only temporary, hoping later to achieve the object of her life-long ambition, to cultivate her voice for a career upon the stage.

I will now give the results of the experiments, not in the order in which they were made, but classified according to the type of content of the script and hallucination.

A. SUBCONSCIOUS (AUTOMATIC) WRITING ACCOMPANIED  
BY VISUAL HALLUCINATIONS.

*Observation I.* In this observation both the script and the hallucination record a *memory* of an episode which occurred two or three years ago when the subject, as I have explained, exhibited the secondary personality of 'Juliana.' The subject now consciously remembers the episode here described at the University. (Susie is the name of the normal personality; 'Dr Jones' is assistant professor of philosophy.) To conceal the identity of the subject fictitious names, including that of the University, have been substituted throughout.

I. A Memory of a Previous Episode in  
the Subject's Life.

The subject was directed to write automatically an account of some episode in her life making the selection herself subconsciously. (Of course neither I nor the subject had any suspicion of what it would be.)

SCRIPT: "I was at Harvard [<sup>1</sup>*University one day with Dr Jones when I changed into Juliana for Dean Smith and he*] was pleased with me. I went [<sup>2</sup>*through all sorts of gestures as Juliana and*] I spoke 'lingo' for [<sup>3</sup>*the men and they seemed very much interested and the Dean never*] took his eyes off Juliana."

While the hand was writing this script automatically without awareness on the part of the subject, the first 'picture' (hallucination) appeared when the word "university" was written and continued until the word "he" was written, when it vanished. This is indicated in the text by the words in italics enclosed in brackets and designated by the number 1. Similarly the second picture appeared synchronously with the word "through," and ended after the writing of the words "Juliana and"; the third picture appeared with "the men" and ended after "never."

The hallucination (as described and taken down verbatim by me) and the script were now compared to see (a) if and to what extent its images were synchronized with the 'ideas' contained in the script, and (b) if the images corresponded to and represented these ideas thus synchronously expressed in the writing after the manner of conscious imagery.

For clarity the script and the hallucination are arranged below in

parallel columns, each 'picture' being set off against those portions of the script that were written during its occurrence.

(I trust this explanation of the phenomena obtained in this experiment and of the form in which they are now presented will be sufficient for a comprehension of all the succeeding observations that follow, as the same plan was adhered to in each.)

## SCRIPT

1. I was at Harvard [*University one day with Dr Jones when I changed into Juliana for Dean Smith and he*] was pleased with me.

2. I went [*through all sorts of gestures as Juliana and*]

3. I spoke 'lingo' for [*the men and they seemed very much interested and the Dean never*] took his eyes off of Juliana.

## HALLUCINATION

I see Harvard University. The steps going up and the brown stones and the whole front of the building I see myself as Susie going up the steps and into the building and I go down the hall to Dr Jones' office. Dr Jones is there and Dean Smith. They rise and shake hands and then sit down. I sit down as Susie and I see myself sitting in a chair and I turn into Juliana. I rise again as Juliana and shake hands again. They seem pleased. (The whole vision is like a movie.)

I see myself sitting in Dr Jones' office as Juliana and I am going through all sorts of funny gestures like a foreigner. They laugh. (I cannot hear them.)

I see myself as Juliana and I am talking the 'lingo'—(I can hear the words—but cannot tell what they are). I can hear Dr Jones' voice as if he is saying this is "an interesting phase" (the exact words).

If you will take the pains to examine carefully these results and compare the script with the corresponding hallucinations you will note several things:

1. At the moment of the occurrence of the subconscious writing of the words "Harvard University," and the words describing each succeeding step of the original episode, a visualization, or hallucination, or image—call it what you will—corresponding to and representing the ideas or thoughts expressed by the subconsciously written words developed in consciousness. I am particular to express it this way because it must not be forgotten that all we have are certain physical marks (writing) on paper (of which the subject, let it also be not forgotten, was unaware) and a described hallucination. But if we accept the doctrine that automatic script is written by actual coconscious thoughts not in awareness rather than by purely physiological processes<sup>1</sup> we may with equal accuracy express the facts and avoid pedanticism by the formula: *at the moment of the occurrence of a subconscious memory or*

<sup>1</sup> I am not certain that it makes any difference in our conclusions whether the writing is done by physical or psychical processes. The point is the correlation of imagery with a subconscious process that is equivalent to a thought and corresponds to the image or images.

*thought (not in awareness) of Harvard University and of each succeeding step of the original episode a visualization corresponding to and representing that thought-memory appears in conscious awareness.*

2. These visualizations resemble and perhaps we may say simulate or are identical with the ordinary visualizations of conscious thought although they may be richer<sup>1</sup> in detail and more vivid.

She subconsciously thinks of being at Harvard University, as had happened on a certain occasion, and almost at once she experiences not only images representing a building at Harvard, but also images of herself in movement, walking up the steps, into the building and down the corridor to 'Dr Jones' room, as she did in the original episode. And so on with the remainder of the episode described in the script.

3. The visualization (hallucination) was much richer in detail than the description of the episode given in the script. I shall come back to this fact and discuss it more fully later. I will merely point out now that this is also true of the imagery of conscious thought and particularly of written thought. When I write "I took such a train for New York," with the thought of having taken the train I may have an elaborate imagery of the Boston station of the N.Y. and N.H.R.R. crowded with bustling people, of entering the gate with other passengers, of the long train of cars standing by the platform of the station, etc. More or less of all this I may have and do as I write it, according as my mind dwells on the incident and gives time for the thoughts and images to develop. And yet I only precisely think and still more only write, "I took a train." A good visualizer has very rich imagery for very simply expressed thoughts.

4. A moment elapses after the script begins to describe the incident *before* the correlated image develops. For instance, the image of the University building does not develop until after the four words "I was at Harvard," were written. This slight delay in the development of the hallucination is of considerable significance and I will come back to it later after the results of the other experiments are given. We shall find better examples of it and also of the correlation of script and imagery in the more elaborate scripts and hallucinations. In fact I begin with this simple type of script and imagery that the main principle involved in all the experiments may be first clearly understood.

5. Finally I would point out that the three 'pictures' in this experi-

<sup>1</sup> Although this qualification is true by comparison with the imagery of the average run of individuals it may be doubted if it is true by comparison with the imagery of some persons who are extraordinarily vivid and elaborate visualizers.



ment can be recognized easily as continuations of the same theme. But although this was always the case, we shall find that with most of the other hallucinations there is no obvious continuity to the pictures. The scenes shift as in a dream without apparent relation to one another. The significant fact is that *the continuity will be found in the subconsciously written script* without which the varying hallucinations would not seem to be related to one another and could not be understood or interpreted as manifestations of one and the same theme.

All these points should be borne in mind when studying the phenomena of the other experiments.

*Observation II.* (This was the first and a preliminary experiment to determine the best technique.) The subject was directed to write subconsciously a fabricated story constructed out of her former so-called 'Spanish dreams'—those of the Juliana system which had as a second personality conceived itself to be the reincarnated soul of a Spanish peasant girl and had created an elaborate fantasy of a previous life in Spain in the thirteenth century. The scenes and personages incorporated in the script had been often previously imagined. The images of the hallucination were therefore reproductions of former imagery. The image of Juliana, for instance, was reproduced exactly as it had always been visualized in the Spanish fantasies. (See Observation IV for a drawing of Juliana and the dancing scene.) The visual images were accompanied by a number of auditory 'images' and also by somatic sensations and feelings. These latter were the same as those which had always been associated with the conception of herself as a Spanish girl. Hence the script begins "I feel I am Spanish through and through."

In this preliminary experiment the scenes of the hallucination were described in detail from memory after the completion of the script. In thus recalling the scenes the imagery was revived again and described from the reproduction. The images, both as they occurred in the hallucination and as revived, were said to be very vivid, more vivid than when experienced in the original fantasies, and were likened to the pictures of the 'movies.'

## II. The Spanish Fantasy.

SCRIPT: "I feel I am [<sup>1</sup>*Spanish*] through and through. [<sup>2</sup>*As I paddled barefooted through brooks*] and carried [<sup>3</sup>*jugs of water upon a yoke and danced barefooted before the king of Spain and his Court—Cortes*]. Also when

<sup>5</sup> [I walked to early mass at the village church or mission at a village called in  
my time Medesa]. And of [<sup>7</sup>Father Brazado, the priest who discovered my  
voice]. [<sup>8</sup>I have a voice. I shall always believe I am a soul.”]

# SCRIPT

1. I feel I am Spanish through and through.

2. As I paddled barefooted through brooks

3. and carried jugs of water upon a yoke

4. and danced barefooted before the King of Spain and his Court—Cortes.

5. Also when I walk to early mass at the village church or mission

6. at a village called in my time Medesa.

7. And of Father Brazado, the priest who discovered my voice.

# HALLUCINATION

Indicated by certain strong feelings and somatic sensations which emerged in association with the image of Juliana, a revival of a fantasy of herself in a previous existence as a Spanish peasant of the thirteenth century.

A brook. Juliana is walking through it barefooted with her skirt doubled up in front but falling behind, showing her petticoat of a very coarse cloth, such as a peasant might wear. (Here the subject remarks, it is “a very pretty picture.”)

[Shift]<sup>1</sup>

Juliana has water jugs on a yoke on her neck carrying them from a fountain in the village. [It is a village not a city because she sees earth around the fountain.] (“I feel as if the image that is Juliana is a part of me.”)

[Shift]

Juliana dressed in dancing costume—marble floors—draperies—flickering lights. She is dancing as Juliana has danced in real life. The scene is such as if it is a King's Court—a lot of people there—men as well as the women are dressed in long robes. That is the men do not wear knee breeches, etc. (The costumes are such as are represented in pictures of medieval times.)

[Shift]

A road. At the end of the road a little church. A sort of white stucco mission church. Juliana's back is towards me. She is walking down the road barefooted going to the church. The whole is as plain as a motion picture. I can see the grain waving in the adjoining fields. (I have the feeling as if she is lazy and does not want to go to church.)

[Shift]

A sort of square. I can see her uncle Salvator. There is a tent propped up over a lot of vegetables exposed in the market place. A lot of foreign looking women are walking about. There is a crowd.

[Shift]

A priest—(a man just as vivid as I can see you) medium height—fat—big fat stomach, dressed in a long black robe. Around his waist is tied a cord, a funny twisted cord like nothing I have seen. (Here she imitates with her fingers the twisting of the cord.) He has a

<sup>1</sup> Note the shifting of the scene after each hallucination without apparent continuity of action which is to be found only in the theme of the script, that is, in the subconscious process. The exact points in the script where two of the hallucinatory scenes ended are not quite clear in my record, so that the time interval between them and the next ones is not apparent.

grayish beard and is walking down a roadway. Fields on each side. Juliana, with thick black hair flying behind as if the air is blowing it, short skirts, bare legs, is raking in the fields. I can hear her *singing* in the Spanish 'lingo.'

[Shift]

8. *I have a voice.*

Juliana *visibly singing* in a sort of arena like the Coliseum in Rome. There is a big crowd of heads in the Coliseum. I can hear a voice singing in the 'lingo.'

On examination of the details of the script and the synchronously occurring hallucinatory imagery, we see that the latter is composed of just such images as the thought contained in the script would normally incorporate. The subconscious writes "As I paddled barefooted through brooks," and at that moment the subject consciously sees an hallucinatory Juliana walking barefooted through a brook, her clothes made of coarse cloth tucked up in front, etc. The picture of Juliana was identical with previously imagined pictures of herself as that personality.

The subconscious writes "and carry jugs of water upon a yoke," and thereupon the scene shifts and the subject sees an hallucination of herself as Juliana carrying water jugs on a yoke on her neck from a fountain in a village.

The subconscious writes "and danced barefooted before the King of Spain and his Court" (a scene from a former fantasy) and straightway the picture shifts again and the subject sees an hallucination of just such a scene at an imaginary Spanish Court. (This dancing scene had been previously constructed in subconscious fantasy and several times was reproduced in the course of this and other observations. (See Observation IV.)

The subconscious writes, "also when I walk to early mass at the village church or mission," and the scene of the hallucination shifts, a little church appears at the end of the road and she sees herself as Juliana walking down the road, etc. The imagery, as in all the other scenes, perfectly corresponds to the thought expressed in the script and is precisely such as such a thought would incorporate bearing in mind the Spanish setting and peasant personality. And so on with the succeeding three scenes. In her previous dissociated personality she had frequently constructed these same scenes with the same imagery which appeared in corresponding hallucinations. The scene in the Coliseum, for instance, she had previously constructed and had woven it into her fantasy of her previous thirteenth century existence. (Before these experiments were undertaken I had already heard this scene described in vivid detail.)

The richness of the imagery in each scene should be noted. When, for instance, the script speaks of the priest "Father Brazado" the corresponding image is not simply of a figure or face, or even a priest, but of a priest portrayed as a personality with particular physical characteristics. It is a piece of character drawing done much as would be done in a play or novel. This character is also given a setting rich in local colour comprising a roadway and fields in which Juliana appears as a peasant girl at work with her rake. Now all this is derived from a previous fantasy which had been constructed as a dream-like work of fiction. The imagery, in other words, includes and is largely constructed out of images belonging to associated ideas as happens in normal conscious ideation. One thinks of a certain person, and images of that person in a particular setting of previous experience arise. Similarly when the script states, "I have a voice," the image is of a particular experience when in fantasy she sang in the Coliseum to a crowded audience. This experience is a pseudo-memory which arises subconsciously.

This richness in detail and extensiveness of the imagery of a hallucination, transcending the verbal limits of the script, is noticeable in all the observations and will be discussed later with the evidence from subconscious introspection. As already stated this evidence was elicited after each observation as part of the technique, but it will be more advantageous to consider all this evidence together.

*Observation III.* For the following experiment the subject was instructed a day or two in advance to be prepared to write automatically at the next visit a fabrication in the form of a story or anything else of an imaginative character on any subject she chose *subconsciously* to select, but something distinct from the Spanish dreams of Juliana; that is, something that would be original and not a reproduction of former fabrications. Thus a chance for subconscious incubation was given. The result turned out to be a poetical (?) glorification of the talents which she has always felt consciously and particularly subconsciously, she possessed, but to which she had been unable to give expression owing to the circumstances of her life. The hallucinations were allegorical in form. It was interesting to watch the hand erasing and altering the phraseology as in conscious composing. There was evident difficulty owing to not being able to see the writing and therefore having to keep the written words in mind.

## III. A Poetical Glorification of Her Own Talents.

SCRIPT: "Open wide thy treasure chest ladened with <sup>1</sup>*gifts so rare.*  
*And sing thy song of rapture of beauteous skies so fair.*

Thy tones will fall as <sup>2</sup>*gems that fell from founts of gold*  
*And the echo of thy song shall die away like strains from lutes*  
*of gold.*

Pandora's box is poor compared with all <sup>3</sup>*I hold*  
*Within, and appears as a box of snuff to the one*  
*Who knows, who sees, and who can tell*  
*Glorious [picture grows larger] splendor of skies of roseate hues,*  
*And the heavenly grandeur of azure."*

## SCRIPT

1. Open wide thy treasure chest ladened with *gifts so rare.*

*And sing thy song of rapture of beauteous skies so fair.*

2. Thy tones will fall as *gems that fell from founts of gold*

*And the echo of thy song shall die away like strains from lutes of gold.*

## HALLUCINATION

A big *chest* rises up in my mind—it is heavily carved—a gorgeous thing. At first it is closed and then it slowly opens. As it opens I see that there are in it beautiful strings of *pearls* and red and white *roses*. I see *vials like cut glass flagons*, and instead of seeing the liquid perfume in the flagons there comes out a sort of vaporous cloud that is perfumed, because I can actually *smell* it. And on the edges of this chest are beautiful birds, like pure white doves. They are alive and it seems as if I hear them *cooing* as in the spring time. I actually *hear* them coo. Then finally, a foggy vapour seems to cover the whole, to swallow it up, and it disappears. (It all seems to symbolize beautiful things.)

I see a *fountain*. It is beautiful. It is of green malachite. The base of this beautiful fountain is formed of funny little creatures that seem to be half animal and half human. They have the faces of goats, with horns and tails and hoofs. They seem like human beings and yet they are goats. (It seems as if I have seen such things before—such as might be in *Midsummer Night's Dream*.) There are four of these figures holding up a big bowl, that of the fountain, which is about five feet tall. It seems to be located on the edge of a wood. In the background I can see light coming through the foliage. Flowing out of this fountain the beautiful *crystal water* falls over the edge into a basin at the base. And beautiful *gems—rubies, emeralds, etc.* fall out over the edge along with the water, as if they were bubbling out of the bowl, and falling into the basin they disappear. Around the basin at the base were *lutes*, and harps—*golden instruments*. I can hear beautiful *soft music inwardly*. (I have often heard such inward music before. I have often got out of bed to dance to this inner music.) *The music seems to come from the instruments* although nobody plays upon them. It is very *low, dim, soft music*. (The vision seems to symbolize the natural gifts I have within me.)

3. Pandora's box is poor compared with all I hold

*Within, and appears as a box of snuff to the one*

*Who knows, who sees, and who can tell*

*Glorious [picture grows larger] splendour of skies of roseate hues,*

*And the heavenly grandeur of azure.*

First I see a picture of a woman angel. She is holding a jewel box in her hand and butterflies are flying out of it. It seems to diminish in size until it gets real tiny. While she is holding it and as it becomes small, rays of light shoot up over the whole and shut out the angel.

*These rays turn into a beautiful sky.* [This was when the vision grew larger, as indicated in the script.] The sky is blue and pink. (It is very beautiful.) Then clouds form in the sky and then they break and show the pink colour through.

The correlation of the several elements of the hallucinations with the *synchronously* written words is strikingly manifest.

The hand writes "Open wide thy treasure chest—laden with gifts so rare," and in a moment or two she visualizes a treasure chest slowly opening and disclosing gifts of rare value.

The script exhorts her to sing a song of rapture, and at the same time in the allegorical visual and auditory hallucinations she both sees and hears beautiful white doves cooing as in the springtime.

The script compares the tones (or words) of her song to gems falling from a fount of gold, and she straightway visualizes a beautiful fountain from which gems bubble out along with the crystal clear water.

The script compares her song (*i.e.* musical voice on which is centred her ambition) to the strains of golden lutes, whereupon synchronously she visualizes golden lutes and other golden instruments lying at the base of the fountain, and she hears "beautiful soft music inwardly" coming, as it seemed, from the instruments.

The script compares the gifts she holds within herself to those Pandora possessed in her box, to the disparagement of poor Pandora (of whom and the contents of her box by the way, her knowledge is very inaccurate<sup>1</sup>), and correspondingly she sees a vision of a "woman angel" (the facsimile of a picture in her possession which she, as it later transpired, imagined was that of Pandora) holding a jewel box in her hand.

The script emphasizes her own marvellous knowledge and gift to describe in song the splendour of roseate skies and the grandeur of the heavenly azure, in comparison with the poor little talents belonging to Pandora and contained in her box, and straightway in the vision only butterflies come out of the box which diminishes to a tiny size, and Pandora and the box are eclipsed by splendid rays of light which turn into a beautiful sky of pink and blue.

Another point worth noting is the wealth of imagery of the hallucina-

<sup>1</sup> As I later determined.

tions. If this imagery may be interpreted to represent symbolically the meaning of the script it approaches allegory with free use of symbolisms and analogies. For instance: her own personality laden with rare inborn gifts, or talents, is likened to and symbolized by a treasure chest filled with gifts of pearls, roses, cut-glass flagons, etc. As she exhorts herself to display her own gifts so she sees the treasure chest open and display its contents, and, somewhat astray in her knowledge of mythology and the contents of Pandora's box (as I afterwards discovered) she compares the gifts contained within herself to those of Pandora, to the disparagement of that mythological lady. Likewise the rich imagery of the fountain with its gems bubbling out with crystal water. All this reminds us of conscious imagery in composition of poetry, oratory and descriptive writing.

*Observation IV.* In this Observation the script records a subconscious memory of a consciously forgotten episode; that is a dream of which the subject has no remembrance nor of the circumstances excepting that during a severe illness years ago and while under the influence of morphine she had a dream of some sort of Spanish character. This was before the break-up into a double personality and the evolution of 'Juliana.' Indeed it was out of the fantasies of such night and day dreams, as I interpret the case, that the Spanish personality later became constructed. The hallucination is particularly interesting as it represents a dream within a dream, with corresponding shifting scenes of which the continuity is to be found in the subconscious script. The hallucination was described orally while the hand was writing the script.

#### IV. A Subconscious Memory of a Forgotten Dream.

SCRIPT: "Once when I was ill in the <sup>1</sup>*South I wished I was a strong woman; I wished I was a Spanish girl* and this is what I dreamed:—that I was a Spanish <sup>2</sup>*maiden of rare beauty and charm*, and then I saw her <sup>3</sup>*sitting on a stump and I seemed to see her dreaming.* <sup>4</sup>*I<sup>1</sup> see her in a palace where there is soft music and there seems to be grapes and flowers and beautiful pictures and oil urns of coloured lights."*

<sup>1</sup> The exact moment of emergence of the last two pictures (3 and 4) by an oversight was not noted on the script. They are here given approximately.

## SCRIPT

Once when I was ill in the South I wished I was a strong woman; I wished I was a Spanish girl and this is what I dreamed:

[Dream of Susie]

that I was a Spanish maiden of rare beauty and charm

and then I saw her sitting on a stump of a tree and I seemed to see her day-dreaming.

[Dream of Juliana]

I see her in a palace where there is soft music and there seems to be grapes and flowers and beautiful pictures and oil urns of coloured lights.

## HALLUCINATION

Described orally while the hand was writing

I see myself in bed. I'm sick. I see a room—a bed in it, a brass bed. I am real weak. I prop myself up on a pillow. I seem to be like I was dreaming—I see myself lying back on the pillow. Now I am asleep.

[Shift]

I see Juliana going into the woods. She is plump with poor clothes—her hair is hanging down her back—she is barefooted. [Comment after the cessation of the hallucination; "She was very pretty."]

[Shift]

Juliana is sitting on a log. She seems to be dreaming. As I see her I seem to see her dream.

[Shift]

I see this peasant girl in a beautiful palace—she has beautiful robes on—there is beautiful statuary in the palace—a lot of gaiety around her—a lot of people as in a court—soft music—I hear it—and a lot of light coloured light from urns and lots of fruit—beautiful marble mosaic floors—the girl is dancing.

After this experiment the subject again visualized the 'pictures' of Juliana sitting on the stump of a tree and the scene of the palace and drew the following illustrations (Figs. 1 and 2) from the visions which she actually saw as if they were real. The mechanism of this revisualization was found on examination to be very similar to that of the production of a crystal vision. There was, also, as was claimed, a coconscious wish ("a great desire") to have the coconscious images emerge into consciousness so as to be drawn.

The dancing scene at Court had been frequently visualized and was therefore an already organized construction. She had little more than to think intensely of it coconsciously to have it reappear. It was a repetition of scene 4, obs. II.

The script begins to tell of an illness which the subject suffered a good many years ago when living in the South and after seven words are written an image of herself ill in bed, in the very same brass bedstead and in the very same room in which she had been ill appears in consciousness. (It is a visualized memory for on seeing the vision she recollects the illness, the room and the bedstead.) The whole hallucination is composed of just such images as would accompany the recollection of such an episode as one would experience when one recalls a particularly serious illness that one has suffered in a particular place. She had been



prostrated at the time, as she well remembers, and the hallucination portrays her as weak in body and the script described her thought as wishing to be strong, to be in fact the strong peasant Spanish girl whom



Fig. 1. Juliana drawn by the subject from a hallucination.

in her day-dreaming she had fabricated as a fantasy; and so she goes to sleep and dreams the fulfilment of this wish.

She dreams (according to the script—whether true or not does not

matter, for it is only with the content of the subconscious process that is writing that we are concerned) she dreams, so the script goes on, that she is a Spanish maiden and the image of such a maiden of "rare beauty and charm" appears as a hallucination but in a particular setting of the woods. The figure is an image identical with that which she had often fabricated of the Spanish peasant Juliana and just such an image as the maiden of the script would in conscious thought evoke. The setting of the woods is not described in the script but, as has been pointed out,

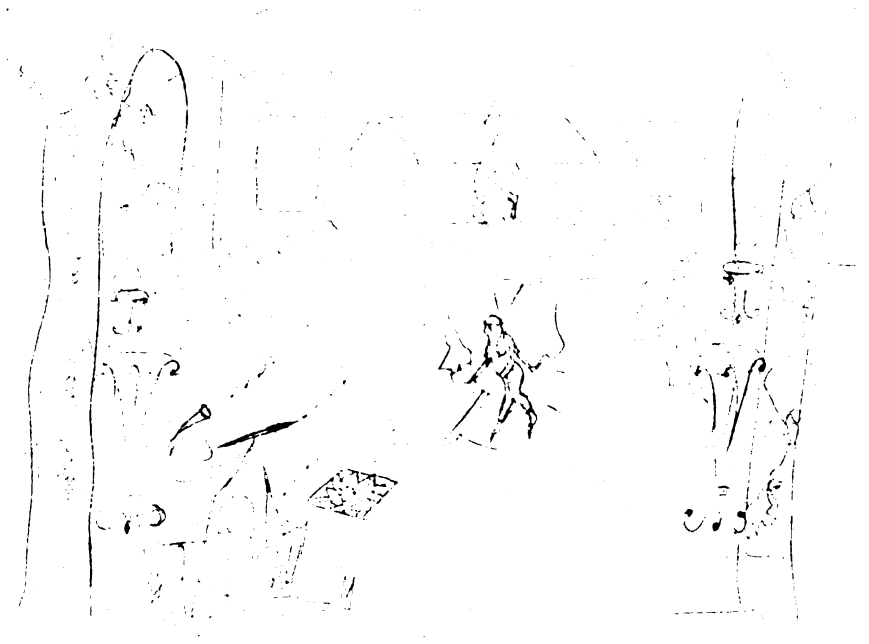


Fig. 2. Juliana dancing before the king (drawn as in Fig. 1).

the imagery of a hallucination is always richer than the script and the testimony of the subconscious introspection affirmed that all the details of the hallucinations were elements in the subconscious process as we shall later see. Then, as the subconsciously written script described the maiden sitting on a stump of a tree, day-dreaming, straightway a corresponding image of Juliana emerges as a hallucination. (Let us never for one moment forget in studying these phenomena, that the subject was entirely unaware of the content of the script—of what the hand had written, and therefore whatever images pertained to and

emerged from the expressed ideas must have pertained to and emerged from a subconscious process, and, if the script was written by a subconscious process, such as the content of that script would require.)

The script declares that (subconsciously) she sees the imagery of the dream and this imagery emerges into consciousness as a hallucination of Juliana dancing before the King and his Court—a long previously organized fantasy.

Thus examined the imagery of the several shifting scenes of this hallucination is precisely such as the content of the script would require; if we are justified in defining that content as coconscious ideas, we may say such imagery as those coconscious ideas would contain.

*Observation V.* The chief interest in the next observation lies in the facts (a) that the script was motivated by anxiety and not by a wish and therefore the hallucination was not a wish fulfilment; and (b) that the emotions linked with the subconscious process (a memory) emerged into consciousness along with the images of the memory. The emotions involved were both anxiety and anger, but it would seem that anxiety was the dominant emotion of the subconscious system producing the script while anger was that which was felt most strongly at least by the subject while seeing the hallucination. Apparently during the original episode, of which the hallucination and script were a memory, both anger and anxiety were elements. For this observation, it should be said, the subject had been directed to write automatically a memory of some episode in her life of an anxious kind. Of course neither the subject nor I had any idea of what would be written.

The occasion referred to in the script and reproduced in the hallucination was one when the subject was in the clinic of the commercial establishment (where she was employed) to get her time card signed for the days she was absent on account of illness. The nurse must pass on such cases.

## V. Memory of an Anxious Episode.

### SCRIPT

"Yes, I am concerned if they will sign my time card and she is cold in her attitude towards me."

### HALLUCINATION

(Described orally and synchronously while the hand was writing)

I see the nurse sitting down at her desk talking to me in the clinic down at the store, and I seem to be perplexed about something, I don't know what. She turns her head and writes something on a card. (She was sort of haughty.)

[Note: The script further claimed that she felt (subconsciously) while writing really *anxious* because it meant much to her if the card were not signed and her pay was 'docked.']

[Oral comment by the subject:]

"A feeling of *doubt* and of being full of *fight* comes into my mind. . . . While seeing the hallucination I felt worried as if my word was doubted, as if I were put on a level with other girls who tell a lie whenever they open their mouths. . . . I had that feeling at the time."

Immediately after the observation was finished the following questionnaire was put to the subconscious system. The answers were written automatically without the subject's awareness of their content.

Q. "What were you concerned about?"

A. "Whether the nurse will put a D.D. [Don't dock] on my card."

Q. "Were you anxious?"

A. "Yes."

Q. "Was the conscious mind anxious?"

A. "No." [Here in reply to my question the subject said, *without knowing what the hand wrote*, that she was not consciously *anxious* at the time of seeing the hallucination but only *resentful*.]

Q. "Were you *really* anxious?"

A. "Yes, and it would mean something if I do not get it signed."

#### Temporal Relation between Script and Hallucination.

It is obvious that there are two possible interpretations of the relation between the script and the hallucinations in these observations. First, the hallucination may be secondary to and a product of the script producing process; or, second, the hallucination may be primary and the subconscious process may simply describe in the script an independent hallucination. The point is crucial: for if the second interpretation be the correct one the hallucination could well be the product of an independent and unrelated process. In favour of the first interpretation and against the second is the fact to which I have called attention, that the writing of a given script always began before the correlated images appeared in consciousness. A moment or two always elapsed after the idea began to be written before its hallucinatory image developed. This can easily be recognized by noting the point marked in the script of the emergence of the image. If the script simply described a primary and independent hallucination we should expect the latter to have appeared first and the descriptive writing of the imaged idea to follow later. But the reverse was the case.

Then again the script is never technically speaking a description of the hallucination (such as the subject herself gave when she experienced

it), but rather a theme in which the expressed ideas would normally have just such images as appeared in the corresponding hallucination.

Further evidence confirmative of the first interpretation was obtained by subconscious introspection—the next step in the investigation. The evidence of introspection was to the effect, as we shall see, that the subconscious process was primary and the hallucination secondary; and that the latter was due to the emergence into consciousness of images belonging to and first formed in the subconscious process.

Introspective Evidence from Self-Analysis by  
the Subconscious Process.

The next step in this study obviously was, as stated in the beginning, to learn what light, if any, the subconscious process itself could throw upon the relation between the images (hallucination) and the writing consciousness; and for this purpose to obtain a self-analysis based on *introspection by the subconscious process* that wrote the script. Such an introspection would be similar in every way to the conscious method commonly employed in psychological laboratory investigations. It would make use of retrospective memories of the content of the subconsciousness. Its value as evidence would depend like all introspection on the accuracy and completeness of subconscious introspection.

The technique in the present investigation consisted in presenting a carefully worded questionnaire to be answered by automatic script and followed often by a rigid cross-examination of the replies, care being taken to suggest no leads or theories.

Accordingly after each of the first four observations the subject was submitted to such an examination. The content of the subconscious process, whether or not it contained images and thoughts and, if so, whether or not such images were in any way related to those of the hallucination, or to the subconscious thoughts (if there were any) producing the script, of course could not be known to the personal consciousness, nor were the answers known until after the interrogation was finished. The self-analysis, introspection and replies were, therefore, necessarily subconscious.

(Observation I: Harvard University.)

The replies of the script following Observation I<sup>1</sup> (the scene at "Harvard University") are striking in that, without any suggestion of

<sup>1</sup> As here arranged the observations are not in the sequence in which they were actually made. This observation was the third following the "Treasure Chest" (No. 3).

any theory whatever on my part, or indication of any mechanism by which the hallucination might be formed, the script clearly and explicitly described the origin of the pictures or images in the subconscious process and their later emergence into consciousness as the hallucination. The only possible suggestion was in the question whether or not the pictures were in the subconscious mind 'also' as well as in the personal consciousness, as surely might well be the case, whatever the mechanism. For subconsciously there is awareness for all that which is in the personal attention. The question only related to a possible memory of a possible past experienced *fact*, not to an opinion or general idea, or other thought. The affirmative answer can scarcely be questioned in view of the fact that subconscious images are not a novel phenomenon, as I have recorded them in at least three other cases; and, secondly, in this case they were repeatedly described to me long before I undertook this investigation, and were then as well as in these observations, recorded under all sorts of conditions and relations and their behaviour correspondingly described, etc. They occurred, so it was testified, spontaneously as well as experimentally. *Furthermore these images had been already described in two preceding observations.* Specifically, the statements of the script in this observation were as follows:

"The thought" arises subconsciously first, "then the pictures [images] are completely formed" and "all is visualized" subconsciously. "*I visualize*," the script states, "*subconsciously the scene I am writing about just as I do consciously.*" [The significance of this sentence is that the subject visualized subconsciously one scene while consciously during the experiment the content of her thought was of a different order (the scene of the room, the experimenter, etc.). Hence the eruption of the former was an hallucination.] The images "are in the subconscious mind while writing and then they are shifted into the conscious until they become visions." "When set, so to speak, they are reflected into the conscious mind." "*It takes some time [a few seconds] for them to come into the conscious mind.*"

(Observation II: The Spanish Fantasy.)

A source of confusion and error in drawing conclusions lies in the fact that sometimes the script is written by a subconscious system (*e.g.* Juliana) differentiated from that from which the images are derived. Speaking *figuratively* there may be two or more 'layers' or 'strata' of subconscious systems underlying one another. The system that does the writing may then derive its images and thoughts from a deeper and

more comprehensive underlying layer or system out of which the writing system has become crystallized as a differentiated system. In such a case the images emerge into this differentiated system from the deeper system and therefore the former does not know their origin but simply describes their content or the thoughts which they picture and which accompany them. Where all comes from it does not know. This is analogous to conscious imagery and thought. I have observed many examples of this kind of phenomenon. The consequence is that when the special script-producing system is interrogated the replies are inadequate and indefinite for lack of precise knowledge. Unless this is borne in mind confusion may result. This was the case in Observation No. II. Practically all the precise information that could be given was that the "visions" originated in "a deeper source of thought" and *first appeared subconsciously* to the writing system. Then, secondly, the writing of the ideas represented by the images caused the images to emerge into consciousness as hallucinations. But however this may have been the essential point is that the images *first appeared subconsciously and then erupted into consciousness as the hallucination*.

This observation was the first made and only a preliminary one to determine whether any positive results were likely to be obtained, and, if so, what was the best method of experimentation. Hence it was rather superficial. The chief points brought out by the subconscious analysis were:

"The 'pictures' seem to form from what has been written but the personal consciousness is not aware of it."

"The visions originate in the deeper source of thought and then the writing of them causes the visions to conjure up in the mind of the consciousness that is describing [orally] the visions"; i.e. the "personal consciousness."

"The deeper source of thought, which writes, has while writing the ideas contained in the pictures; so much so that that is where the mystery lies."

I am impelled here to insist again, as I have frequently done, that there is no *the* subconscious or *the* unconscious. In the structure of the mind there are greater and lesser systems of potential and dynamic processes which may be motivated by the urge of one or more 'dispositions.' These systems play and interplay with one another; and any one or more without entering the awareness of the personal attention may function 'subconsciously.' The concept of an unconscious, of which we read much nowadays, *limited* to primitive instinctive processes, is

based on inadequate knowledge of subconscious phenomena and is therefore scientifically amateurish. Such concepts belong to philosophy and are bound to go the way of all systems of philosophy after having served their usefulness, even as do scientific theories based on incomplete knowledge.

(Observation III: The Treasure Chest.)

The pictures (images) were first formed in the part of the mind that was answering the questionnaire; "the part that wrote the lines had the pictures and they became visible to the one sitting at your side [the subject]." The process was claimed to be as follows: The thoughts expressed in the versification came subconsciously on the way to keep her appointment. These thoughts were put into verse later, only, during the experiment and while writing, but the images were there before the composition was arranged and the "poetry came from the images<sup>1</sup>." "The thoughts were there first; then when they were grouped together to form the poetry the visions appeared [to the consciousness of the subject] during the process of the writing"; i.e. while writing the script the images erupted into consciousness as the hallucinations. "It took a few seconds for the images to become realistic to the conscious mind."

The order was:

1. Subconscious thoughts.
2. Subconscious images.
3. Subconscious verse.
4. Emergence of the images as hallucinations.

*As to why the visions had more details than were described in the script,* it was explained that there were subconscious thoughts of all the details of the fountain, but "you cannot write all the details as a vision can be described." In other observations substantially the same explanation was given. Thus, in Observation VI it was stated that "there is a subconscious process that can create visions quicker than the process of writing." This is emphasized by the fact that some visions are "mostly a memory," as was stated to be the case in one of the hallucinations of that observation. Then again (Observation IV) some hallucinations are recurrences or repetitions of subconsciously visualized scenes which have

<sup>1</sup> The whole process was quite complex, according to the explanation given. Although the thoughts and images of the verse were in the subconscious system that wrote the script of this observation (III), they did not originate there but in a 'deeper' and more comprehensive subconscious system which was answering the questionnaire. From this 'stratum' they invaded the system that was the author of the script and then the images erupted into consciousness as the hallucinations. This was the same order of affairs as occurred in the preceding observation (II). This same phenomenon, in kind, I had observed under other circumstances and in different forms.



been already constructed subconsciously in all their details and are later revived and flashed as a whole before the mind.

As to what suggested, *i.e.* motivated the thoughts of the verse, it was explained, "I am not self-centred but I do know I have a certain amount of talent, and I suppose it was because that thought or thoughts were uppermost in my mind."

(Observation IV: A Memory of Illness.)

In reply to the question, "What work was being done subconsciously during the hallucinations from which the drawings were made?" the script asserted:

"The subconscious mind of both Susie and Juliana was at work projecting into the conscious mind the visions of Juliana and the palace, and a great desire to have reproduced the vision in the deepest part of the mind [so that it could be drawn]. Yes, there were images that formed the people—all things were images." "The subconscious mind thought it all out, it creates the images; then constant thought pushes them into the conscious mind."

B. ARTIFICIALLY INDUCED VISUAL HALLUCINATIONS.

A series of observations were now carried out of a character *converse* to the preceding. Instead of producing primarily subconscious script with secondarily resulting correlated images (hallucinations), *artificial hallucinations were experimentally produced and the script employed to describe what if any subconscious 'thoughts' occurred during the hallucinations.* The method employed was that of fixing the attention by means of a crystal. No directions were given as to what would be seen in the crystal. That was left to chance.

*Observation VI.* This series of three hallucinations is particularly instructive in that it shows the subconscious connection between hallucinations which apparently, as in dreams, have no obvious continuity by themselves. In the thoughts subconsciously written the connection is clearly shown especially in A and B of Hallucination 2, which I have consequently grouped together as one. The vision of her mother in a distant city suddenly without time interval shifts to a scene in Boston. The script enables the meaning of the shift to be understood. Subconsciously as the script explains, she wishes she could go home and see her mother once more sitting in the chair as she had often seen her and then after she has fulfilled this filial wish and obligation return to Boston

and complete her vocal training for the stage. This connected subconscious thought fills in the gap between the hallucinations A and B and explains their meaning.

Likewise there is a connection between all three hallucinations, although less explicit, and notwithstanding they were separate, interrupted observations, but made within a few minutes of each other. She has an aspiration to go upon the stage in opera and act a certain part, that of a Spanish girl in a scenario which she has thought out (Hallucination 1). To accomplish this it will be necessary to remain East and not only support herself by working but at the same time fit herself by study. But she also longs to see her mother (Hallucination 2). This conflict she has often mentioned. Her solution is, as she also has frequently stated, to return home temporarily and then return to the East. But she has expressed doubts if she would be allowed to return if she should go home. Her wished for solution is contained in A and B. In B the images are of herself singing by the side of her teacher, just such images as we should expect would be contained in the thought, though the hallucination is not a memory of a particular experience but a fabrication of an imagined general experience.

But to carry out her aspirations she needs a better paying position for temporary gain, so she applied for the position of assistant buyer and was called before the judges of the applicants. Hallucination 3 is a memory of that event.

## VI. Three Subconsciously Connected Hallucinations.

### HALLUCINATION 1

I see a *theatre stage*. I see a little bit of a body (myself) on this great big stage and I am dressed like a *Spanish girl* and I have my arms up *gesticulating as if singing*. I seem to be gay. I am dressed with a shawl and fringe.

### SCRIPT

I am thinking I would love to make *my appearance on the stage as a singer and impersonate Juliana as a Spanish girl*.

### HALLUCINATION 2

(A) I see my *mother sitting in a chair* and myself leaning over her kissing her.

[Shift]

(B) I am in a *studio by a grand piano*. The teacher is playing and I am *standing by his side singing*. I never saw the studio before. It is prettily furnished.

[Shift]

### SCRIPT

(A) I wish I could see my *mother sitting in her chair and then come back East and*

(B) *Go on with my vocal work*.

### HALLUCINATION 3

I see an *office down at the store* and I can see the *three men I talked to* about the position of assistant buyer: there are three chairs, a desk and myself. (I do not see the rest of the vision—not a complete picture like those I have seen.)

### SCRIPT

I am thinking of the day I was called to the *office of the judges* to select an assistant buyer to train for the position.

Following this observation the writing system was catechised and asked to explain why the hallucination of the studio showed more details than were contained in the automatic writing. The explanation given was that the content of hallucinations was often thought out subconsciously, first in detail before they were described, and that "there is a subconscious process that can create visions quicker than the process of writing." The vision of her mother was mostly a memory.

*Observation VII.* The next observation is extremely important in that, on the one hand, it illustrates the principle that script may be produced by more than one subconscious system, and, on the other, it shows a source of error that must be guarded against in such experiments. Otherwise we may be led astray by a failure to find a correlation between the hallucination and the script. In other words *a hallucination may emerge from or be determined by another system than that which is writing.* Furthermore it compels the conclusion that more than one subconscious system may actually function at one and the same time, and in this case three such systems. That script may be obtained from several distinct, different systems is well known, as is attested by the script obtained by mediums in claimed spiritistic communications. Of course psychological investigations have determined the same principle and the facts (*e.g.* Flournoy's classical observations in the case of Hélène Smith<sup>1</sup>. I need not mention numerous observations of my own illustrative of this point.) It may therefore be that the script obtained during a hallucination may show no correlation with the latter. In that case it may be that script can be obtained from another subconscious system which will contain very intimate correlations. This proved to be the case in this observation where the unrelated script first obtained was written by the 'Juliana system.' The hallucination consisted of a number of differing and shifting scenes. As the subject saw these scenes she sometimes laughed or commented on them. With this preamble I will now give the record of the observations, giving the hallucination and the corresponding script of the 'Juliana system' first.

## VII. Hallucination of the Fulfilment of an Aspiration.

Scenes: 1. Funeral (laughs)—2. Church—3. Cemetery (laughs)—4. New York—5. Theatre—6. Big buildings like an apartment house. (Given verbally and synchronously with the script of the 'Juliana system'.)

<sup>1</sup> "From India to the Planet Mars."

Each scene shifted to the next one, as in a movie, without an apparent time interval. The subject experienced the successive scenes of the hallucination while the script was being written by the 'Juliana system' and described each verbally in general terms, such as: "I see a funeral"—"Now I see a church"—"It has changed to a cemetery," etc. The six scenes were accordingly recorded as above. Immediately after the hallucination was completed and nothing further appeared, each scene was taken in its order and the subject while the memory was vivid described the details as given below.

| HALLUCINATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SCRIPT                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Details of scenes given from memory immediately after their completion                                                                                                                                                                                                                                                                                                                                                                                                                                        | By the 'Juliana system' written synchronously with the hallucination                                                                                      |
| 1. I saw a <i>funeral</i> —a casket on a cart such as is used for soldiers with black drapery over it and a white cross of lilies on the top. I could see the petals. There were black robed priests carrying huge white candles and some little boys dressed in white following the casket and shaking incense burners—Streets paved with large rough cobble stones. ["It seems to be in Italy—seems foreign to me."] ["I had a feeling at the time the funeral was Juliana's. That is what made me laugh."] | "I am at last out of this world of toil, and with the angels rest; my soul has wended its way to the heavenly realms. This is a real spirit message now." |
| 2. Door of <i>cathedral</i> . I could see the tower and on top of it a cross. The funeral procession was entering the door. First the priests, then the casket and finally the little boys.                                                                                                                                                                                                                                                                                                                   | [Signed] Juliana.                                                                                                                                         |
| 3. Barren landscape. A <i>cemetery</i> —graves far apart—one grave opened and they were putting the casket in it. The priests and the boys were standing around the grave, the boys waving the incense. There was no one else there at the funeral. ["That is the funny thing about it—there were no friends."]                                                                                                                                                                                               |                                                                                                                                                           |
| 4. I saw myself in <i>New York</i> just as I am now and I was walking down the street—high buildings on either side—there were busses, automobiles and people—["I did not recognize the street."]                                                                                                                                                                                                                                                                                                             |                                                                                                                                                           |
| 5. <i>Theatre</i> —I was going into it by the main street door. I went down the side aisle to the dressing room and I then saw myself on the stage dressed in Grecian white robe—I was simply standing there ["not acting—I did not know what I was going to do"]—no other actors on the stage—audience in their seats.                                                                                                                                                                                       |                                                                                                                                                           |
| 6. <i>Apartment house</i> —I went in—took elevator—went to an apartment I felt to be mine—let myself in by latchkey. It was a beautifully furnished apartment, rugs, etc. I saw all the furniture. I threw off a long neck piece of fur, then I stood at some long windows and looked out. I seemed considerably older than I am now, as if I were more of a woman than I am now—say 36–38 years.                                                                                                             |                                                                                                                                                           |

The 'Juliana system' was now interrogated and it was easily demonstrated that this system had no causal relationship with the hallucination but that the spirit message was written as a jest.

[Here an interesting psychological phenomenon that I have frequently observed and reported developed: namely, the emergence of emotional tones from a subconscious process. While this system was writing the spirit message and during the first part of the interrogation when the system manifested a humorous, almost hilarious, mood the subject was in high spirits, joyful, and felt the spirit of fun. Later, during the latter part of the interrogation when the 'Juliana system' admitted her tomfoolery and wrote of her past (the period when she was a double personality), the subject remarked without knowing what the hand wrote: "I feel serious, now. All my high spirits and feeling of fun have left me"; and then, as a coconscious confession of previous deception was written, "I have a sad, remorseful feeling<sup>1</sup>." This emergence of the feeling tones belonging to subconscious processes is of significance in the mechanism of moods and exalted and depressive states. The phenomenon accompanied some of the hallucinations.]

My first thought, in the failure to find in the Juliana script any psychological relationship of imagery with the hallucination, was that the findings would prove to be exceptional and that a different type of mechanism for the hallucination would be disclosed. On further investigation, however, this proved not to be the case, as a correlated script was obtained from another subconscious system—the 'Susie system.' This latter did not attempt to go into the details of the subconscious thoughts. I am rather sorry now I did not demand this, but my whole attention was concentrated upon the principle and the source of the first obtained script and of the hallucination<sup>2</sup>.

When the subconscious 'Susie system' was tapped, as was now done, this system at once claimed to be the source of the hallucination and wrote the account given below of the 'thoughts' which went on subconsciously in this system while the hallucinations were being formed.

<sup>1</sup> "I have a final confession to make—that I have told falsehoods and who can blame me. I was fooled for years by a lying subconscious mind who made me a puppet for its own trickery. Perhaps you will understand. Think of the many years I was fooled into believing I was a soul." This confession refers not to these experiments but to the early period of double personality above mentioned, when the subconscious 'Juliana system' claimed to be the reincarnated soul of a Spanish peasant.

<sup>2</sup> This involved considerable work, including rigid cross-examinations of the two systems that wrote. To reproduce here the details of this examination would take us too far out of the way. It is sufficient to say that it transpired that the 'Juliana system' facetiously took control of the pencil and as a joke wrote the script pretending to be a spirit message. Although the message was short the 'Juliana system,' of course, might have gone on writing during the unfolding of the whole hallucination.

I have arranged the 'thoughts' as given in a parallel column in apposition to the corresponding hallucination.

| HALLUCINATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SCRIPT                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Details of scenes given from memory immediately after their completion                                                                                                                                                                                                                                                                                                                                                                                                                                     | By the 'Susie system' written subsequently to the hallucination and therefore from memory                                                                                                                                                      |
| 1. I saw a <i>funeral</i> —a casket on a cart such as is used for soldiers with black drapery over it and a white cross of lilies on the top. I could see the petals. There were black robed priests carrying huge white candles and some little boys dressed in white following the casket—shaking incense burners. Streets paved with large rough cobble stones. ["It seems to be in Italy—seems foreign to me."] ["I had a feeling at the time the funeral was Juliana's. That is what made me laugh."] | "I had thoughts of Juliana's passing out of existence and of Susie standing on her feet alone and gaining fame from her own conscious efforts and not leaning on any one for support." [Here the 'Susie system' was told to be more explicit.] |
| 2. Door of <i>cathedral</i> . I could see the tower and on top of it a cross. The funeral procession was entering the door. First the priests, then the casket and finally the little boys.                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                |
| 3. Barren landscape. A <i>cemetery</i> —graves far apart—one grave opened and they were putting casket in it. The priests and the boys were standing around the grave, the boys waving the incense. There was no one else there at the funeral. ["That is the funny thing about it—there were no friends."]                                                                                                                                                                                                |                                                                                                                                                                                                                                                |
| 4. I saw myself in <i>New York</i> just as I am now and I was walking down the street—high buildings on either side—there were busses, automobiles and people—["I did not recognize the street."]                                                                                                                                                                                                                                                                                                          | "I had thoughts of a funeral of which I made the Juliana complex the central figure."                                                                                                                                                          |
| 5. <i>Theatre</i> —I was going into it by the main street door. I went down the side aisle to the dressing room and I then saw myself on the stage dressed in Grecian white robe—I was simply standing there ["not acting—I did not know what I was going to do"]—no other actors on the stage—audience in their seats.                                                                                                                                                                                    |                                                                                                                                                                                                                                                |
| 6. <i>Apartment house</i> —I went in—took elevator—went to an apartment I felt to be mine—let myself in by latchkey. It was a beautifully furnished apartment, rugs, etc. I saw all the furniture. I threw off a long neck piece of fur, then I stood at some long windows and looked out. I seemed considerably older than I am now, as if I was more of a woman than I am now—say 36-38 years.                                                                                                           |                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | "And then I thought if the Susie complex would struggle she could gain fame as an actress"                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | "and maintain her own apartment just as she pleased, a long standing heart's desire."                                                                                                                                                          |

The successive scenes of this hallucination are plainly the pictorial representation of a theme which is briefly set forth in the script of the 'Susie system.' This system, it should be explained, represents the aspirations of the normal self. The 'Juliana system' is a subconsciously

perseverating remnant of the former secondary and alternating personality from which this system has been derived.

*Observation VIII.* In this observation a series of shifting scenes developed. As each picture appeared the subject, as in Observation VII, called out the fact and described in general terms the scenes: "I see a street in New York"—"I see a scene in a theatre"—"A ship on the ocean," etc., with a few additional descriptive words. *While these pictures were developing* the hand automatically wrote the script signed 'Susie.' At the same time I recorded each picture and marked on the script the moment of its beginning and ending. As in the previous observation, immediately after the completion of the script and the hallucination, the subject described in detail from memory the pictures she had seen, taking them one at a time in the order of succession. This she was easily able to do as she could vividly revive them rich in detail. Each picture was then compared with those words of the script that were written during the occurrence of that picture. Arranging the pictures with the corresponding script in parallel columns I would invite your attention to the striking failure of correlation between the two synchronously occurring phenomena. Careful examination reveals that the hallucinations cannot be regarded as the emerging imagery of the subconscious process producing the script. For example: corresponding to the picture of a ship's dock (4), we have only the word "shall"; and to Hotel (6), the word "earth." The complete observation may be arranged as follows:

### VIII. Hallucination in seven scenes: Visit to Italy.

Scenes: 1. Street in New York—2. Theatre—3. Ocean—4. Dock—5. Subway—6. Hotel—7. Hotel Room.

(Described in general terms verbally and synchronously with the script of the 'Susie system.')

#### SCRIPT OF THE 'SUSIE SYSTEM.'

"I am thinkinking [1] of New York and of the [2] fame I shall some day achieve as a great ac[3]tress and of my dreams of long standing shall [4] shall [5] hall mature and I shall travel to various sparts of [6] the earth [7] and I shall become overjoyous of my painstaking efforts and the fruit of my toil.

[Signed] Susie Sub[conscious]."

[NOTE: Observe the halting and stammering at 3, 4 and 5, and imperfect spelling. The script was crabbed and was written slowly and apparently with some difficulty. This corresponds with the theory that the images came from still another train of thought which inhibited this one.]

Fig. 3. Facsimile of Script in Observation VIII.

| HALLUCINATION                                                                                                                                                                                                                              | SCRIPT                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Details given from memory immediately after production                                                                                                                                                                                     | By the 'Susie system' written synchronously with the hallucination |
| 1. Street scene in New York.<br>I saw lots of people—automobile busses—cabs—automobiles—myself—I seemed to be very intent and in a great hurry walking on the sidewalk.                                                                    | I am thinkinking of New York and of the                            |
| 2. Theatre.<br>I was in a theatre on the stage (not set—only a piano and a man). I was being taught by this man at the piano, singing. (I could not hear my voice.)                                                                        | fame I shall some day achieve as a great ac                        |
| 3. Ocean.<br>I was on a ship in midocean—no land in sight. I was walking on deck with the same man. It was dusk.                                                                                                                           | tress and of my dreams of long standing shall                      |
| 4. Dock.<br>I could see baggage being taken off by express and baggage people—lots of people hurrying around holloing for cabs—awful turmoil—I was with the man leaving the ship and on the dock—was getting into a carriage with the man. | shall                                                              |



## 5. Subway.

Trains in it. I went down the subway from the carriage and got in the train—doors opened on the side as in London. It was in Italy because I saw funny language like Italian on the bill boards. No, it was Spanish language. I don't know where I was. It was Spanish or Italian. The strongest feeling in my mind was Italian.

hall mature and I shall travel to various sparts of

## 6. Hotel.

Portecochère of a big white building. I went in with this man, in a big lobby. I registered myself—I could see this man talking to the clerk as if he knew him. It was as if he was telling the clerk to look after me. He tips his hat and goes away.

the earth

## 7. Hotel room.

A beautiful room—done in old rose draperies—white furniture—imperial looking, it was so elegant. Different from anything you see in hotels. I was *very tired*. I was walking across the floor—all I could do and threw myself on the bed. I felt as if I said out loud—"At last I have realized what I long hoped for." ["I don't know what that meant."]

and I shall become overjoyous of my painstaking efforts and the fruit of my toil.

["I don't know who the man was—I felt that he was a foreigner—he knew how to sing—as if an *impressario*."] ]

Although no detailed correlation between the hallucination and the script can be postulated from the point of view of imagery of specific concrete thoughts, that is in the sense that the imagery of the hallucination can be recognized as the images of the specific ideas of the script, there was a general correspondence of the themes expressed by both. The script speaks in general terms of her aspirations and their fulfilment: the hallucinations as a whole represent a series of imaginary incidents which carry out concretely as fantasies these aspirations. But no concrete subconscious thoughts are discovered of which the hallucinations would be the normal images. The first two scenes (New York and Theatre) and the last (Hotel Room) might be interpreted as exceptions, but in a second script obtained later we shall see that the imagery precisely corresponds to images that would be expected of this second train of specific thoughts.

Undoubtedly the general theme of the first script was determined in accordance with a well known principle: that is to say, by the more specific ideas of a second subconscious process that induced the hallucinations.

In search of another system that might be responsible for the imagery of the hallucinations, the 'Juliana system' was now tapped by automatic writing. This system, after claiming that the pictures belonged to its

thoughts, wrote successively, but of course from memory, the 'thoughts' that were subconsciously experienced during each hallucinatory scene. The given data may be tabulated as follows:

| HALLUCINATION                                                                                                                                                                                                                                                                                                                                | SCRIPT                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Street scene in New York.<br>I saw lots of people—automobile busses—cabs—automobiles—myself—I seemed to be very intent and in a great hurry walking on the sidewalk.                                                                                                                                                                      | By 'Juliana system' written subsequent to the hallucination from memory. The form correspondingly differs from synchronous script <sup>1</sup> .<br><br>I thought I was in New York preparing my voice for an operatic career and I was on my way to the Metropolitan Opera House to see a man who would help me train my voice. That is why I was in a hurry. |
| 2. Theatre.<br>I was in a theatre on the stage—only a piano and man—(not set). I was being taught by this man at the piano, singing. (I could not hear my voice.)                                                                                                                                                                            | I was thinking that this noted man—I do not know his name but he was there [Metropolitan Opera House] and was very much in earnest with my vocal progress; I was thinking I was rehearsing an opera with him that he claimed I would score a success in, and he proposed taking me to Italy to further my studies in that rôle.                                |
| 3. Ocean.<br>I was on a ship in midocean—no land in sight. I was walking on deck with the same man. It was dusk.                                                                                                                                                                                                                             | I was thinking of the trip promised me at the theatre and of being on the liner bound for Italy where I would resume my studies in the opera of <i>Traviata</i> ; also that this man would take me there.                                                                                                                                                      |
| 4. Dock.<br>I could see baggage being taken off by express and baggage people—lots of people hurrying around holloing for cabs—awful turmoil—I was with the man leaving the ship and on the dock—was getting into a carriage with the man.                                                                                                   | I was thinking that we had reached our destination and I was in Italy.<br>The scene as near as Susie told it was a perfect picture of what I was thinking.                                                                                                                                                                                                     |
| 5. Subway.<br>Trains in it. I went down the subway for the carriage and got in the train—doors opened on the side as in London. It was in Italy because I saw funny language like Italian on the bill boards. No, it was Spanish language. I don't know what it was. It was Spanish or Italian. The strongest feeling in myself was Italian. | I was thinking of passing through a subway. That was my thought—a European one.                                                                                                                                                                                                                                                                                |
| 6. Hotel.<br>Porte-cochère of a big white building. I went in with this man, in a big lobby. I registered myself—I could see this man                                                                                                                                                                                                        | I was thinking I was in Italy and I was very tired after the ocean voyage and very joyous to be in the land of my dreams.                                                                                                                                                                                                                                      |

<sup>1</sup> As the script purported to give the content of past thoughts by retrospection, the memories are given in rather general terms and it was obviously impossible to accurately correlate in time with the 'thoughts' the images within each scene. Therefore I did not ask for minute details. The danger of artifacts in so doing is obvious.

talking to the clerk as if he knew him. It was as if he was telling the clerk to look after me. He tips his hat and goes away.

[The script later claimed she was thinking of a hotel also, but forgot to write it. The fatigued condition followed this thought. It is significant of the absence of any intentional fabrication of thoughts to fit the pictures that the script here went on as follows: "I was thinking this noted man was about to return to the hotel for me and take me to an opera house to try my voice, and I was thinking the place was very dark and cold and outside it was very bright and sunny." While the pencil was writing this sentence the subject saw a vision of a theatre corresponding in details to the thought; but there were no such images in the original hallucination. When asked to explain this absence of hallucinatory imagery, the script said it could not, but that the thought was "not vivid and did not develop into a picture," as obviously is most generally the case; otherwise we all should be having hallucinations.]

#### 7. Hotel Room.

A beautiful room—done in old rose draperies—white furniture—imperial looking, it was so elegant. Different from anything you see in hotels. I was *very tired*. I was walking across the floor—all I could do and threw myself on the bed. I could feel as if I said out loud—"at last I have realized what I long hoped for." ["I don't know what I meant."]

["I don't know who the man was—I felt he was a foreigner—he knew how to sing—as if an impressario."]

I was thinking that my efforts in the future should bring me the reward of such a beautiful chamber and I thought out each detail of rose and ivory that Susie described<sup>1</sup> only she did not tell all the wonderful things.

### C. AUDITORY HALLUCINATIONS.

Alongside of the visual hallucinations it will have been noticed that there occurred auditory hallucinations in a number of instances (Observations I, II, III). Experiments were now undertaken to determine, if possible, whether or not the mechanism of such auditory phenomena was the same as that of the visual variety. First such evidence as might be derived from the self-analysis by the subconscious process which induced the hallucination was obtained. In evaluating this evidence it should be borne in mind that the particular auditory hallucinations to which the subconscious analysis referred were 'messages' from the subconscious to the personal consciousness, or a subconscious *intention* that

<sup>1</sup> Referring to the conscious oral description of the hallucination by the subject.

the words should be heard by the latter. This is not always a condition, as in Observations I and III. The subconscious, however, on numerous occasions has experienced this type of hallucination, as when, for instance, she acted as an amanuensis for the internal voice and to the dictation of the latter wrote a long story. Such messages were, however, quite common in this subject just as they are frequently met with in the hallucinations of the insane.

*Observation IX.* The subject heard an internal voice say:

- (a) "Get that smoke out of your lungs";  
and again,  
(b) "Tell Dr Prince the Juliana complex is still holding her ideals<sup>1</sup>."

In response to a searching interrogation as to the mechanism of this and other auditory hallucinations the subconscious process gave testimony which may be summarized as follows:

In such hallucinations subconsciously the words are first *intensively thought out and grouped together as auditory sounds or words; that as a result of this intense subconscious thinking the auditory words emerge into consciousness as the hallucination*; but in addition, in order to produce such a hallucination, there is a subconscious 'striving' or 'aim' to have the thoughts emerge into awareness, a motive to have the thoughts heard; that if there was no such subconscious desire the subconscious thought would remain 'cut off' or 'away by itself' (i.e. dissociated and not in awareness).

In this way the script explains why sometimes with subconscious thoughts, as in automatic writing, auditory hallucinations occur, and sometimes not. *Intenseness* of thinking and *striving* were required although the two apparently were considered as identical. The script could not explain the phenomena further. The main point is that when the auditory hallucinations occurred, the words or auditory 'images' were first formed subconsciously and then, as the second step, emerged into awareness as the hallucination. It is obvious, however, that there must be another factor to cause the emergence, as auditory hallucinations do not invariably or even commonly accompany automatic writing, and they occur when no subconscious volition to this end is in evidence. Perhaps intensity or vividness of the 'images' may be sufficient and the

<sup>1</sup> In explanation of this the script wrote that it referred to a past conversation with me and the "high ideals" she "had heretofore set forth" in regard to smoking cigarettes which she conceived "harmful." The message apparently resulted from a subconscious memory of this conversation and the reflection: "I felt" (so the pencil wrote) "cigarettes were like morphine and I feel uneasy over them. I must not touch them."

determining factor. Subconscious desire or volition was insisted upon by the script as the factor in the hallucinations in question which were plainly of the message type. Accordingly it was arranged, as a test of this claimed ability to produce a hallucination by subconscious volition, that the subconscious process was to write (without the knowledge of the personal consciousness, *i.e.* the subject), a sentence the words of which she would will the subject to hear as a hallucination, and the latter, if and when she heard an internal voice, was to speak aloud the words internally heard. The two—writing and internal voice—would then occur synchronously and could be recorded. The results were as follows:

*Observation X.* The hand wrote:

(a) "I am going to play Princess Theres on the stage<sup>1</sup>."

At the same moment while the hand was writing, without seeing the script and without knowledge<sup>2</sup> of what was written, the subject exclaimed:

"I am going to play Princess Theres on the stage." These words she heard as an internal voice.

(b) (The hand wrote): "I smell cigarettes."

As before the subject heard a voice and exclaimed:

"I smell cigarettes."

In such observations we have written speech and verbal speech synchronously produced. The words of both were identical. The written words were produced by some process not in awareness without the knowledge of the subject. The subject pronounced the same words at the same time claiming that she heard them internally and her veracity is not open to doubt. That there must be a correlation is manifest and we must conclude that the same process that produced the script induced the internal voice. As this was done by prearranged intention it must have involved volition of some kind. (Of course I had no knowledge of what the words were to be.)

<sup>1</sup> This was accompanied by a vision which as described was identically the same as that experienced in Observation IV—the same court scene, stage setting, marble floor, herself dancing, etc. When asked to explain how it was that the vision portrayed more than was in the auditory hallucination and the script, the hand wrote: "It had been picturing for years [*i.e.* previously constructed] and all that had to be done was to flash it before the conscious thought like a moving picture." This picture was "intensely thought of subconsciously." (Here intensity rather than volition apparently was the determining factor.)

<sup>2</sup> As she averred and I believe.

## D. DREAM IMAGERY.

The phenomena elicited in the following record and analysis of a dream, while not belonging strictly to hallucinations, yet are so closely allied and show such similar mechanisms that I throw it in for good measure.

*Observation XI. Dream of the Paprika Dance.*

"I saw a stage with a huge red pepper in the centre of the stage and the lights were dim. Then I heard a loud burst of music and the scene changed and the large pepper opened in quarters and a large group of women in bright red tights were dancing around upon the quartered pepper. Upon their heads were caps of red, fashioned like the top of a red pepper with the stem serving as a tassel. The stage was now ablaze with light and just as I awakened it grew dim and the women scampered away."

After the narration of this dream, which impressed the dreamer because of its 'completeness,' the beauty of the music, and the vividness of the memory left of its details, the subject sketched the two dream scenes. These are here reproduced.

The method of automatic writing was then utilized to obtain subconscious memories as testimony of, first, what, if any, subconscious mental processes had gone on during the dream and therefore, of course, during sleep, and, second, the meaning of the dream and the motive for its production. In response to a rigid cross-examination the following was testified to by the script.

The idea of the dance had been *subconsciously* thought out the day before as a novelty for a vaudeville sketch. The motive was to create something "to put before a producer to gain an avenue of escape from the miserable shopwork." Every detail of the scenes was thought out including the music. There was also a desire to have the "conscious mind know of this creation." "In the day time the conscious mind was too busy to take in anything from the subconscious mind." But at night when "the mind was passive" this could be done. So when the mind was asleep "I thought and thought very hard all I had created," the subconscious testified. All the details of the previously thought out scenes now "were grouped together into a finished product." "The intensity of my thoughts created the pictures, first in my complex of thoughts," and then these pictures or images entered "the conscious mind" as the dream. In other words, as with hallucinations, *the normal*

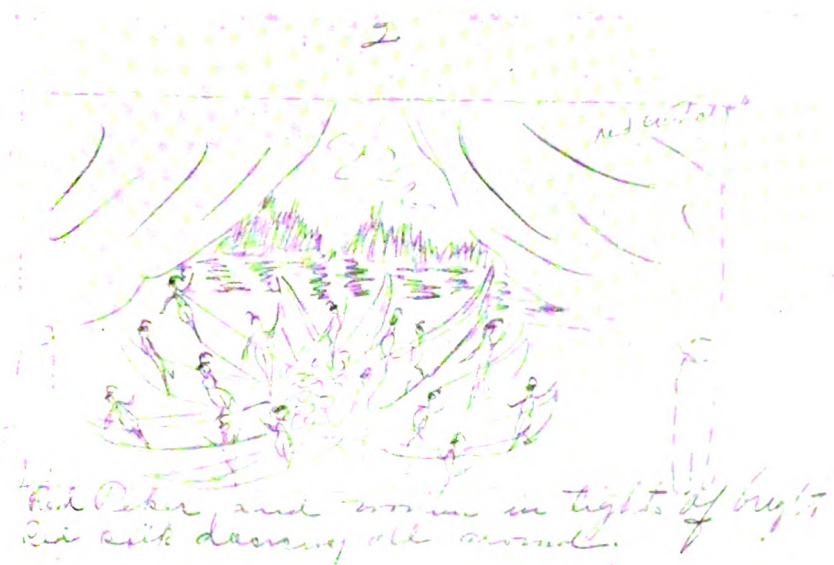
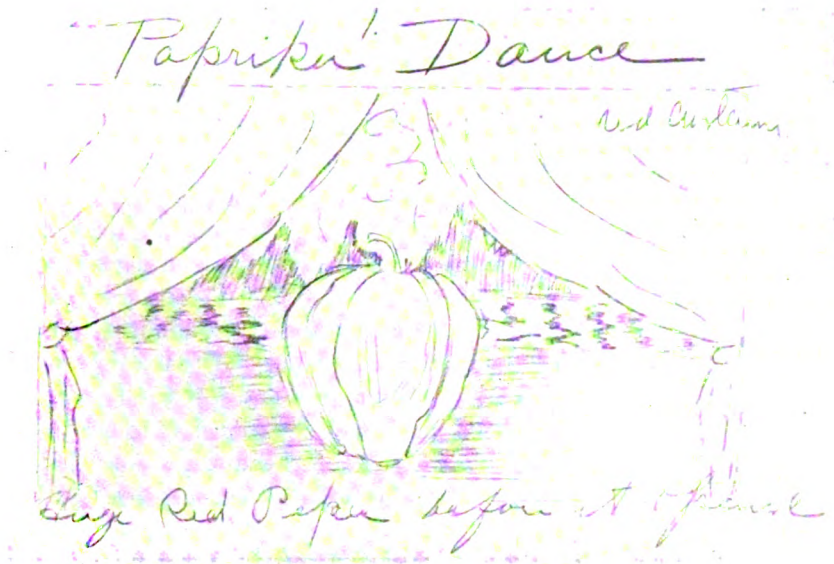


Fig. 4. Drawings of dream imagery.

*imagery of thought, but now subconscious thought, emerged into consciousness to become the dream imagery*<sup>1</sup>.

The meaning of the scene (that became the dream) was "a passionate dance and atmosphere." "The red pepper bespoke that idea, warmth of the dance and its dancers" [symbolism]. The motive was not a (sub-conscious) sexual wish on her part nor was the scene a sexual wish fulfilment. Nor was there any sexual feeling or desire at the time of constructing this vaudeville novelty or during the dream. (In reply to a question as to this the hand wrote emphatically, underscoring twice, "NO!")

The purpose was the artistic one—common we must admit to scenario writers if we judge by the present day agitation for censorship of the 'movies'—to create something that would draw and specifically "attract the male attendance." "The idea intended to be conveyed to the public by the red pepper and the movements of the dancers was that of passion." This "the red peppers symbolized because they are hot. The idea struck me," the script explained, "as a novel one without going into details and dissecting it as you are doing. I thought it a spicy, snappy idea. Now what would you think if you went and viewed it at a theatre?" "The women coming out of the pepper symbolized only beauty of form; nothing more."

The idea of the red pepper was suggested by seeing at home a paprika can and its highly seasoned contents. *This idea flashed into her mind at the time as a good one.*

This interpretation of the motive of the dream of course will be objected to by some critics who will insist that there was a deeper unrevealed and unsuspected 'unconscious' motive in the form of a sexual wish. This criticism cannot be disproved but it is very amateurish in that it shows a lack of familiarity with experimental psychology and an all comprehensive knowledge of the phenomena of the subconscious. It is equivalent to a denial that other 'unconscious' processes than sexual wishes are capable of constructive imagination.

However, the main point I have in mind in citing this observation is not the interpretation of the dream but rather to show the analogy between one type of dream imagery and the imagery of hallucinations, and that, if this observation stands as reliable, the mechanism of the two is identical. This is what should be expected as, after all, dream imagery is one type of hallucinatory phenomenon.

<sup>1</sup> Apparently this was not the expectation or intention but only a necessary consequence of the intensity of thought. The intention was to create a condition of bodily nervousness which, from previous experience, would result in the subject investigating the cause, etc.



## CONCLUSIONS.

1. There is a type of visual hallucination in which the imagery has its source in a dissociated mental process of which the subject is not consciously aware. Such a process is by definition a subconscious one.

2. The content of this subconscious process contains images identical with the normal imagery of conscious thought.

3. The hallucination is due to the emergence into consciousness of the previously subconscious images. This emergence necessarily results in a hallucination in that the imagery of the latter is not related to the content of the conscious train of thought but is foreign to the latter. This is a necessary consequence of the imagery being normal elements in a separate dissociated train (mental process).

4. The subconscious process is essentially a coconscious one of thought.

5. There is a type of auditory hallucination which has essentially the same mechanism.

6. As there is a type of hallucination (visual and auditory) occurring in the insanities which is identical in form, structure and behaviour with that produced experimentally in this study, the conclusion is justified that such hallucinations of the insane are due to the same mechanism.

7. The implication follows that when hallucinations of this type occur in the pathological psychoses, they are indications of the activity of a dissociated subconscious process as a factor in the psychosis.

8. The hallucinatory phenomenon carries the further implication that the genesis and psychopathology of the psychosis are to be found in the forces which have determined the dissociation and motivated the subconscious process.

9. It is not to be assumed that all hallucinations have the mechanism of the type here studied. It is possible that in those occurring in the intoxication psychoses and in certain forms of organic brain disease, particularly where the hallucination is of a simple unelaborated static structure, the imagery is induced by direct irritation of the cortical or subcortical neurones. It is difficult, however, to exclude the possibility that the intoxicating agent or organic process simply removes inhibition and permits subconscious dissociated processes to function. Nor can we find any analogy with the known effect of irritation of motor and other areas of the brain. Irritation, as observed, produces simple movements and simple sensory phenomena (noises). Still, the possibility of

irritating factors becoming the immediate excitants of organized complexes of neurones underlying the hallucinations, cannot be excluded. This theory needs, however, to be proved. Even the irritative theory, as opposed to the psychogenetic theory, permits of the interpretation that the irritation excites a dissociated subconscious process from which images emerge into consciousness.

10. The psychological problem of differentiating between normal imagery and hallucination disappears in that they are identical, the hallucination being only the normal imagery of a dissociated subconscious process.

11. If the evidence given by subconscious introspection be not accepted, a possible interpretation of the hallucinatory imagery is that the images do not themselves occur primarily as subconscious elements, but by the same mechanism appear in awareness as the conscious correlates of a co-active dissociated physiological process. In other words, a subconscious process is neural, not psychical. On the other hand, such an interpretation does not take into account a large mass of collateral evidence for the psychical nature of processes occurring outside the field of awareness.

12. So far from a hallucination being a regression to an infantile form of thought (Freud), it is an element in highly developed adult thought processes.

13. The mechanism of the imagery of some dreams is the same as that of the hallucinations of the type here studied.

## THE SPIRITUAL SIGNIFICANCE OF PSYCHO-ANALYSIS.

BY BEATRICE M. HINKLE.

MANY statements have been made in recent years to the effect that science and religion are not widely separated and antagonistic, as formerly thought, but are actually near relatives. The discovery of this relationship and the recognition of the possibility of their reconciliation has, however, been made chiefly by those interested in the preservation of religious ideas; there has been practically no consideration of the subject by anyone working from the scientific viewpoint.

Indeed psychoanalysis, which is one of the latest claimants for scientific recognition, has been largely instrumental in bringing into a clear light the soil and roots from which the spiritual arises. As a result of this work it is implied quite generally that the conception of the spiritual and religious nature of man can be regarded with a smile of superiority and this ancient heritage dismissed as having been disintegrated into its primitive elements and therefore of no further value for humanity. On the other hand the enemies of this technique and its findings have hurled as their most deadly weapon against its theories the charges of mysticism, of occultism, and of similar scientific bogies. Furthermore, these charges are for the most part accompanied by evidences of those emotional reactions of fear and anger which reveal something quite different from the cool detached scientific spirit that one expects from scientists; rather is the attitude one with which we have become more familiar in association with the defenders of religion when danger seemed threatening from the encroachments of science. Therefore we must realize that something fundamental is here involved which has a connection with a deep instinct in man. As William James expresses it "science itself has become devout."

Unfortunately, although the ideas of man may change his need does not change. His desire and longing to-day are the same as they were through the long stretches of prehistoric time out of which the myths of the race and the earliest of the Gods were evolved. He who in one age prayed "Our Father which art in Heaven" cannot, in another, eliminate this ancient human longing merely because it comes into conflict with

his intellect, while his entire emotional disposition remains the same. Yet there is for him no returning to the "God of his Fathers," and those who attempt to return meet with the disillusionment of a man who returns to the toys of his childhood. He humbles his pride and attempts to ignore his hard-won knowledge only to find the God who was once warm, living and near, is now a pale emasculated abstraction, a 'Life-force,' a 'Spirit of Universal Good,' a 'Universal Energy.'

With the development of science and the emphasis on material and concrete fact, there began that objectification and formalizing of the Idea which inevitably destroys the spirit, and in this process the conception of God became deeply involved. Any effort to bring God into the realm of concrete reality, an object of the senses, or to make of him a purely intellectual and formalized being could not result in anything else than the loss of God altogether; for it is God as love, as a spirit, an unseen power, psychologically real, but not sensibly real, who is the object of worship. With the loss of this purely spiritual and personal God, the supreme object of love and adoration has also disappeared, and man is without an object great enough to act as a lure and lead him to reach beyond himself.

The knowledge that the old image of God and the religions belonging to it were the product of fear on the one hand, and the infantile wish for a loving, perfect parent on the other, in no way disposes of the problem nor renders the great need of humanity less poignant. For the real loss sustained by humanity in the materialization of the God image and the disappearance of faith in the power and greatness of religion for the development of individuals, has thrown a great amount of energy (libido) formerly bound up with these conceptions into the unconscious, and to this is due, in great measure, the disturbed, dissatisfied state of present day humanity.

Therefore, we are forced to seek for another way of solving the problem which shall at once recognize man's inner need and yet conform to the scientific attitude and the resulting reality of to-day. It is for him to face himself as object, to delve into his own depths to discover the origin and meaning of this need in himself and then deliberately to set himself the task of meeting it in an attitude satisfying to his intellect as well as to his feelings.

But this task is not one that can easily be accomplished by the individual unaided. Self-knowledge is not born of introspection, for introspection deals only with consciousness, and the springs of action and desire lie in the unconscious. He has need of a help outside of

himself, of an object conceived of as beyond himself, on whom he can project his love, and here he finds that the forces which destroyed his Gods, the forces of science, are already busied with the task of helping him to a new fulfilment.

Psychological science is largely occupied in these days with the problem of resolving the complex into the simple, and the disintegration of man's most cherished conceptions and ideals into what appears inferior and unworthy is not the least of the causes of his present disturbed condition. However, the tearing down which is the particular function of science can at the same time be the necessary process in the service of a new and better utilization of those great forces which are the basis of all man's achievement and strength as well as of his weakness and failure.

It is the aim of this paper to show that in psychoanalysis, paradoxical as it may appear, we have a method which has the power of awakening in the individual the very subjective experiences which we call spiritual, and which make for the kind of psychic growth and development that religion in all ages has aimed at calling forth. It seems an extraordinary fact that out of science, known chiefly as the destroyer of individual values, there has arisen something new and potentially creative, not only of individual values but of more highly evolved and integrated individuals themselves.

Psychoanalysis concerns itself with the feelings and emotions, not as many imagine that it may destroy them or rob man of something beautiful and precious, but in order to give him an understanding of them and thus help to release him from bondage and lead him to a greater power and freedom. The very nature of this task, dealing as it does with the strongest and deepest elements in man, namely those of love and its allied forces, must of necessity produce a great disturbance in the mind, for reason plays a poor second where strong emotions are aroused. However, when the real significance of the work is grasped, it will be seen that something has been added to man; a new power produced by the widening and deepening of his consciousness. Conceptions and ideas concerning love and religion, heretofore only intuitively expressed, now become actualities subject to scientific examination, and when interpreted psychologically are intellectually acceptable and become capable of conscious direction. Although originally developed entirely as a therapeutic measure, the technique of psychoanalysis has so greatly increased the understanding of human conduct that its usefulness has been broadened far beyond that of a treatment for the sick. It is this

aspect of the subject that offers humanity a new means of assistance in its endless struggle towards a higher development, one which includes the primitive basis of human desires as demanded by science and, at the same time, the experiences and conceptions known through religious teachings.

Psychoanalysis as developed and propounded by Freud and his pupils, definitely regards the inadequate or faulty development of the sex instinct, under which heading he embraces all the tender emotions associated with love in whatever form, as the basic cause of all neurotic states and symptoms. He considers that children hold a definite sexual wish towards their parents and that the failure to renounce this by the natural means of the mechanism of repression and transference to another object (such as occurs normally during the period of object seeking), is the cause of a lack of psycho-sexual development, with the consequent outbreak of a neurosis as a substitute formation for the unconscious and denied sexual desire. In the same way he attributes the development of culture to erotic sources and in the predominating influence which he ascribed to the sexual instinct in the life of man there is reason enough for the great antagonism and misunderstanding of his work which it was fated so long to receive. There can be nothing surprising in this when we consider what a new and radical departure from time-honoured medical methods as well as from the popular religious and philosophical conceptions, was implied in his theories. That the sexual instinct and the love emotions should play a very important part in the aetiology of the neuroses, however, is surely not extraordinary when we consider the attitude towards sexuality which our civilization has produced. With slight reflection upon the matter it is very evident that an instinct which has been fought over and struggled against for thousands of years, which has been the leading theme in poetry, romance, and the arts, must be something which possesses the power to disturb man greatly and even affect him destructively, although in a form which he is quite unable to recognize. His taboos and repressions have not destroyed it. It goes on operating in spite of his strongest opposition and his highest ethical formulations. The way of the past was to degrade the instinct and see it as something inferior and unworthy of man which must be repressed. Hence to discuss it in a concrete fashion as an active factor in human life appeared sully and unclean. The great outcry against recognizing the power of the sexual impulse over humanity, and even against permitting an examination of these claims must itself signify something important. It reveals in the first instance

a great fear that the problem may not be really disposed of and therefore that man's effort through the method of repression may be found inadequate. With no other way to meet the danger he may be confronted with its overwhelming power; for man may not surrender himself to the 'pleasure principle' save at his peril.

Practically it is impossible to deal with the problems of any individual without coming upon sexuality; the very repressions and inhibitions to which it has been subjected have only served to give it more prominence and importance in life than it might otherwise have had. This fact has been taken advantage of by critics who have asserted that the impure mind of the analyst suggests sexual problems to the patient and that they are not spontaneous productions. There is no doubt that there are analysts who are incompetent, crude and underdeveloped themselves, and incapable of handling the delicate material with which they deal, just as there are surgeons who are clumsy and awkward operators. Unquestionably great harm and injury can be done by both. This, however, is no argument against surgery, nor is it an argument against psychoanalysis; nothing could be further from the truth than that the method of psychoanalysis suggests to the patient the material which he produces. Nor does analysis strive to hold the individual in the gross forms of his instinct; rather its aim is to help him to lead them to a higher expression.

Besides the sexual instinct there is another great primary force at work in all human beings, namely the ego instinct, the desires and strivings of which are as imperious and demanding in many persons as the sexual instinct. Freud recognizes the ego motive, but has given it very little importance, definitely stating that psychoanalysis is only concerned with showing that all egoistic strivings are admixed with feeling components from the sexual sphere. The claims of the ego impulse for independent recognition soon found a champion in one of Freud's earliest pupils, Alfred Adler. He became convinced that instead of the sexual impulse playing the predominant rôle, the strivings of the ego under the aspect of the "Will to Power" were the controlling motives of human life and dominated character formation, conduct, and the neuroses. He also saw the sexual element in the personality but, reversing Freud's view, he considered that this is always admixed with the ego components and plays a secondary rôle. The conflicts between the feelings of inferiority and the desire for superiority Adler calls "The Masculine Protest" or the "Will to Power," taking the latter term from Nietzsche, whose whole philosophy is based on the theory that the

primary motivation of human life lies in the desire for power. Man wants to be a superman. In that desire lies the secret of all his painful striving, his arduous adaptation, and his progress from the animal up.

Here then are two distinct schools of thought within the psychoanalytic field, both using the technique of psychoanalysis but arriving at opposite conceptions, each taking one of the two fundamental impulses of life as the causative factor underlying the behaviour and conduct, not only of neurotic persons but of all human beings. They agree in just one particular. They are both determinist and are both interested in the purely reductive aspect of the problem. By this I mean that they are concerned only with the primary instincts, the reduction of the so-called higher to the lower, and could in no way be accused of attributing anything spiritual to the process of psychoanalysis.

Now, without any doubt whatever, a careful analysis of the human psyche cannot fail to discover beneath their varied disguises these primary instincts operating in all their nakedness as the dominant factors in human life. Whether the chief weakness lies in inadequate development in the sexual sphere or whether the egoistic strivings, the "Will to Power" is the primary element in the psychic disturbance depends largely upon the type of individual, rather than upon the supremacy of one theory over the other. This question of type of individual also affects the scientist, for with the same complex data before him, one will look at and stress one aspect of the data, and the other another; and the interpretation of material under consideration is largely determined by the personal equation of the investigator.

It is this fact which is largely responsible for the third division in the psychoanalytic movement. Carl Jung of Zürich, likewise one of Freud's earliest pupils, soon came to see that both these theories are really correct, and that one instinct alone cannot be held solely responsible for the totality of human weaknesses and failures. Through this study he gradually developed his theory of psychological types, and through the recognition of differences in personalities he was enabled to reconcile the opposite conceptions of Freud and Adler. The sexual theory pertains more particularly to one type and the power theory to an opposite type. Both instincts operate in all persons and it is to their faulty and imperfect development that most of the sorrows and ills of mankind are due.

Besides this formulation of different types of individuals Jung also contributed a theory of the prospective aspect of the unconscious material as opposed to the purely reductive one, and the division of the concept of the unconscious into two aspects which he calls the personal



unconscious, containing all the forgotten experiences and impressions gained in the life of the individual, and the collective unconscious, signifying that aspect of the mind carrying racial experiences and archetypes. Although the material produced by the individual in the course of analysis is the same as that which is interpreted by the Freudian school as nothing but thwarted instinctive sexual desires, or by Adler as simple egoistic strivings, Jung sees in it the germs of a striving, and an instinctive urge towards a higher development and a more evolved individual. He considers this inner demand towards individual development as the real problem of humanity and as something that cannot be safely ignored—the struggle towards a higher evolution and the failures and lack of fulfilment ceaselessly operating as the cause of our woes.

Therefore, from the standpoint of the Zürich school, analysis in the hands of a competent analyst is a method by which the individual can be assisted to help himself towards a real development and shown how to take a hand in his own re-creation. The possibility of a real psychic transformation, a rebirth for the individual, rather than merely the relief of a neurotic symptom through its reduction to its primary source, is the goal of this school of analysis.

Thus Jung's analytic theory and practice are very closely related to the pragmatic conception in philosophy, and aim at meeting the actual needs of the individual as they present themselves, even though the roots of these needs are found to lie in the original and primary instincts.

Regardless of the particular school to which one's personal predilections incline, it has certainly become clear to all who have had any experience in this work that man is actually in a much less developed state than he has imagined. Our education and culture have produced one-sided personalities. All teaching and training have emphasized the desirability of stressing and cultivating the strongest and so-called highest functions and traits, and of ignoring and pushing into the background, into the unconscious, all the weaker and less desirable elements of the personality. If the weakness and inferiority can but be kept out of sight, and the strong and desirable capacities cultivated until they become still more dominant, education feels it has done its proper work. But what are both the individual and collective results of this attitude which has culminated in the extreme specialization of our age? We need only look at the present condition of humanity and the world for our answer. The age of science has produced the machine, and with it a dependence and interrelationship between human beings out of all pro-

portion to their individual potentialities. Instead of a rounded personality and capacity we have each man representing a single part of the whole; one virtue, one line of thought, one study, or in the industrial world, one contribution to the completed article, no one person having the knowledge or capacity to produce the whole. Therefore the individual man in his life and activities has become only a tiny part in the great machine; as a separate unit of power he has ceased to exist. Thus from a superior being "a little lower than the angels," he has become a little lower than the animals—a mere cog in a machine.

As a result of this, the compensating function in nature which always arises when one tendency or direction is pushed to its limit, manifests itself in behaviour under the form of a most crude and unlovely individualism. By this I mean that attitude which reveals itself everywhere; inside groups in the egotistic strivings for dominance and preferment quite regardless of the social object; and outside in the supreme efforts at self-aggrandizement and in the conduct expressed in the adage, "each for himself and the devil take the hindmost." This is the only aspect of individualism which is recognized when this conception is broached, and it is one from which all people of finer types are attempting to escape. But this individualism is the result of the collective movement of nature as expressed through man, and our terms of good and bad, desirable and undesirable, have no meaning for it. No more satisfactory form can evolve until man consciously recognizes this need as both proper and desirable.

The question then is, how can we meet this problem as human beings instead of being merely pawns in a great collectivity we call life, dependent for our evolution and development entirely upon the pressure exerted by our environment?

Can we not directly and consciously take some part in this problem of freedom as far as our own individual selves are concerned, and deal with the totality of our natures? If there is no possibility of this, then the great messages of all the great teachers of the world are vain, and humanity may truly look upon itself as the deluded victim of an illusion so great that its destruction would be equivalent to the destruction of human life itself. I, for one, reject this assumption and base my opinion on no theory but on the facts of experience as they have presented themselves to me. Beside this, even though there appears to be little difference in the primitive instincts of the modern man and those of his distant ancestors, the cave dwellers, the phantasies of all the great teachers of mankind have assumed that a more highly developed and

perfected mankind was possible. It is true that phantasy expresses a wish, but it also embodies the possibility of a reality, for as Jung says, "What great thing has there ever been that was not phantasy first," and has not all our reality of to-day been the phantasy of yesterday?

The great teacher, who brought the message of individual valuation and emphasized the significance of love in the service of other possibilities than mere sense gratification, was Jesus Christ, and in his teachings concerning the various steps which man must take in order to attain the goal of a higher development, we find an extraordinary similarity to the actual experiences which the individual passes through in the course of a complete analysis for the purpose of individual development.

I must say that it took a long time and involved much experience before I came to this realization, and then only after the facts were presented to me again and again in the course of analysis, so that I could no longer fail to recognize the relationship. Even though the subject of religion or the moral aspect of life was never directly mentioned in the analytic process, the problems of the religious and spiritual aspirations of man under one form or other always appeared. To be sure this is not strange since the very seat of the spiritual and religious feelings, the emotional nature, as distinguished from the intellectual, is the field of analytic study and work. Therefore when we read, in William James' *Varieties of Religious Experience*, the testimony of many persons who, through painful struggle and deep recognition of sin, with the religious conviction dominating them, have experienced the same psychic phenomena which are a constant accompaniment of the analytic experience, the analogy between these two different methods of dealing with the psyche becomes obvious.

Only the other day a professional man of highly intellectual and materialistic tendencies said to me, "I had no idea when I came here for analysis that I was going to become a Christian." Expressing my surprise, I said, "But I have never discussed religion or Christianity with you, nor has the analysis been concerned with it." "No, that is just the strange part of it, but I've come to realize that in going through this analytic experience I have been living what it originally prescribed."

I am quite sure that if he had belonged to a Buddhist or Brahman culture instead of a Christian one he would have told me he had been living those teachings; for it is the experience of an analysis that he had been living, and it is this that carries within itself all the elements and possibilities of a spiritual regeneration.

Let me attempt a brief explanation of what I mean by this:

In the beginning of an analysis the first step is the breaking down of the barriers that separate one human being from another, the sharing with another, and thus rendering it objective, that inner life of feeling and thought, with the hidden actions and incidents carrying an affective colouring, which are quite buried within the personality. This is never done without considerable difficulty and painful emotion, for all finer natures shrink from the exposure of their intimate feelings and instinctively fear the letting down of the barriers and defences which hedge about all relations with others. Next comes the entrance into the personal unconscious, that realm which is unknown to the person himself. Here, in the awakening of long-forgotten memories as well as unknown tendencies and impulses, the most difficult work of analysis is experienced, for the greatest resistance arises against the touching of sore places in the soul, and against the humiliation of perceiving for oneself that many of the cherished ideals and phantasies are only illusions and self-deceptions having no actual value for the personality. The pain and psychic disturbance accompanying this realization are comparable to that other serious and emotionally charged experience belonging to the Christian doctrine which is known as a 'conviction of sin.' This mental attitude is practically unknown to-day, but when one turns back to the history of early Christianity there one can see what meaning and value for the development of personality lay in this experience.

The forced introspection caused by this intimate working with one's own personality produces a certain state of withdrawal from the ordinary interests of the world. The individual is turned in upon himself and comes face to face with his personal problem and with his instinctive tendencies, which have been buried and turned away from for so long. This withdrawal into the self we call a state of introversion and it may be of a mild or deep character. Possibly this condition may be one that is of frequent occurrence in the ordinary life of the person, and is known as a dark mood or depression which apparently occurs when some specific disturbing situation in connection with the outer world has flung him back into himself. From such a state the normal person struggles to free himself, and to turn his interest from his depressed thoughts out into the world again, so as to shut away the sense of darkness and isolation that envelopes his consciousness. But in an analysis one endeavours to give one's self over voluntarily to an examination of the inner thoughts and feelings, in order to rid this other world of its bogies and to come to terms with that shut-off portion of the personality which was left behind, ignored and unassimilated. There are several stages belonging

to this process, which periodically appear as the person proceeds upon his journey into the under world. The first stage is mild and often accompanied by feelings of the greatest relief and peace, particularly if a good *rapprochement* with the analyst has been established. This state of feeling is quite comparable to that condition so often described by religious devotees as the experience accompanying the "surrender to Christ." Gradually, however, as he enters deeper into the unconscious he becomes more identified with his early life, and there appear regularly those imperishable images of father and mother with all the affective associations surrounding them.

The mother is the all important figure for humanity, for she is the source of life out of whom we all have come, and to whom unconsciously the human being harks back in his desire to escape the difficulties of life and to recover that original state of oneness and of peace. Before birth the child is in an entirely subjective state, and has not yet achieved a separate existence; no conflict nor necessity for adaptation has arisen and the state of paradise, in which man knew not himself, is complete. With physical birth he is plunged into an objective world with everything to learn, to struggle with and to endure. Now it is a notable fact that although man is born physically and becomes a separate being with the cutting of the umbilical cord, he is only partially born psychically. He is attached all unconsciously in greater or lesser degree during his lifetime to the mother from whom he came, and after a brief space of time returns to the great dark Mother Death, who receives us all. In the state of voluntary introversion, everyone produces symbols from the unconscious which clearly embody and reveal these associations. Again and again persons will say "I feel as though a black pit were at my feet into which I must descend," or, "I am in a dark tunnel and there is no light to show me which way to go." The death phantasies which so often accompany such states clearly reveal the nature of the psychic process which the individual is passing through. The Freudian interpretation would say he is simply experiencing an infantile wish which has no other meaning than to reveal his incestuous desires. But there is a much greater significance in this experience than this sterile conception. Psychically, he is returning to the womb of the mother, truly, but for the purpose of a rebirth, and at this period of the analysis his dreams and phantasies are continually occupied with this subject.

The conception of rebirth is one of the most common themes in art and poetry. Its important meaning for man is obvious in the frequency with which he uses the metaphor in ordinary life. In a deep analysis

we can observe the conception become an actual subjective experience through which the individual passes, and from which he emerges, entirely conscious of the change which has taken place within himself.

This experience bears an unmistakable relation to that mystical admonition in the New Testament—"Ye must be born again," and the difficulty which Nicodemus had in understanding this teaching is the same difficulty which modern man experiences when he thinks of this mysterious saying and ignores the subjective aspect of his nature. To be born of water is the ordinary physical birth which comes to every one, but that other birth which is described as "being born of the spirit" is a psychical birth, the necessity of which is realized only by a few. The reason for this is not hard to find, for the process is a psychological reality belonging only to man and is far from a simple matter.

On the way to this achievement the individual comes without fail to the great problem of sacrifice which, as he expresses it, is "like the giving up of my very life." This sacrifice motive can appear under as many forms as there are individuals, but when this stage is reached it frequently takes a long time and requires much work and genuine strength of purpose; for passing through this experience makes very clear that other mysterious saying: "He that would find his life must lose it." It is in this surrender and sacrifice of the primary psychical fixation and of the longing for the original oneness experienced within the mother that the individual comes to a rebirth; only then can he bring his entire libido or emotional energy to maturity expressed in many forms under the terms of creative work and love.

Through this process one arrives at an understanding of the reality of the various subjective phenomena experienced by man and of their value for the individual, and obtains a realization of the meaning of the religious conception of the temptation of the devil and of demonic possession. The overwhelming impression which one gains through observation of many individual experiences, of the operation of forces within the personality by which conduct and behaviour are determined, and which preclude the operation of our cherished idea of free will, is incontrovertible. Free will is not a free gift. Anything approximating to it is only to be hardly won. No better description could be given of the various visions and phantasies with their accompanying affects which flood consciousness when a deep introversion occurs, than those presented in some old religious books which describe the experiences of the saints with God and the Devil. These states, sometimes of ecstatic beauty and harmony, sometimes of terror and darkness, are the regular experiences

which I have shared with many a struggling human being in the quiet of my office; and there are few of the so-called mystic experiences that do not arise, either fleetingly or more profoundly, during the investigation of the collective unconscious. There is one notable difference, however, between this work and that involved in the religious conception. The individual is always consciously aware of the meaning and nature of the experience through which he is passing, and no supernatural agencies outside of himself are necessary to account for the phenomena. Instead of mere belief or faith, an intellectual and emotional understanding of the situation and of the forces with which he is struggling, is the medium through which this method functions.

We are, it is true, dealing with the intangible realm of desire and emotion, with that realm which hitherto has been the domain of the metaphysical and the religious ideas. We are not concerned, however, with theories of any future state or world philosophy, but with the discovery and development of the inner law belonging to each individual. This development makes it possible for him to replace the infantile psychic disposition which produced his need for dependence upon an external power both human and divine, by a real moral autonomy actually achieved. Thus through actual psychic achievement in which neither arrogance nor pride of intellect has any part, a gradual winning of that goal of freedom which has been for so long the shibboleth of the human race may become a thinkable possibility.

Critics have often said that it is a great misfortune that psychoanalysis brought the sexual element into such prominence, but I think this is a mistaken feeling, based on an aesthetic ideal instead of on the ideal of facing the truth. For, as the operation of this instinct in its primitive and crude form was revealed to be a very general and dominating factor in man's life, it became necessary, if there was to be any genuine raising of instinct to a higher and more human plane, to have all illusion and self-deception shattered. Only by coming into full knowledge of himself and his actual stage of development can man consciously cooperate in the re-creation of himself. There need be no fear that knowledge will destroy any genuine product of development. That which is really achieved becomes a stable element of the personality possessing its own peculiar structure and attributes.

The difficulty with mankind was that with the advent of the Christian ideal of love as the next step in his development, a violent reaction away from the pagan riot of the senses took place with the consequent compensatory turning to asceticism. In asceticism and its denial of any

rights to the physical and material organism, all of which were to be subordinated to the 'spiritual,' we see the mechanism of repression operating in the most intense form. Now the difficulty with the repressive mechanism as a transforming power is that nothing is essentially changed by it. The desire is only forced from consciousness into the unconscious, where it produces its characteristic functioning through projection in the form of physical or mental symptoms, or the affect is transferred to an alien product where it masquerades as a genuine production.

The only value to the individual of the mechanism of repression lies in the sincerity of the effort made in the renouncing of the sensuous desires in consciousness, the struggle and opportunity for exercise of moral as opposed to physical courage, and the creation of a self-imposed discipline. The actual value of the repressive mechanism is purely collective with little or no regard for the individual. But no development takes place in the tendencies repressed; their operation is merely shifted from one form to another.

Certainly it was not without meaning that the "Redeemer of the world," the "Prince of peace," the principle of love and the bringer of individual values, was born among the animals in the filth of a stable in a crowded Oriental village. Symbolically understood such a tradition in which something of highest value is portrayed as coming out of the lowliest, carries meaning of the greatest significance for humanity, and the words embodying the same idea, "can any good thing come out of Nazareth," may be recognized as the eternal question of man, "can there be any good in evil?"

We may ask what is it that man in the Christian era considered particularly evil and has tried most insistently to crush and turn away from, as unhallowed and unclean? There can hardly be a dissenting opinion that it is sexuality and his sensuous desires. Psychoanalytic experience has taught us what the stable and animals generally symbolize when these images are produced from the unconscious. Therefore when tradition tells us that such unaesthetic and crude surroundings are the birthplace of love it is worth an effort to understand the mystery.

Through the analytic process man comes unfailingly upon his animals, which he finds usually symbolize crude collective instincts; and when he discovers the unaesthetic and even dirty forms of instinct-activity which may lie concealed in his soul under the guise of innocent phantasy or dream, then we see the greatest resistance arise against the acceptance of this repressed and ugly side of himself. He cannot remember that in



the stable love was born, and that only through an acceptance of that which is most inferior in himself and a conscious working with it instead of an unconscious repression of it, can genuine transmutation take place. When this realization is gained he can begin to understand how the path to the highest can only be found in the midst of the lowest. For the greatest values of the personality may lie hidden in the crude forms prevented from development through the repression. In other words, there is bound up in crude instinct and in the repressive mechanism an amount of energy (libido) which when released is capable of creative use in the higher aspects of human personality. In this way can be understood that spiritual truth that the lowest shall become the highest and the highest sink to the lowest. The significance of this paradoxical saying with many others of like character is intimately bound up with what we may call the 'pairs of opposites.' This phrase, which belongs especially to the Brahmic teachings of man's nature, most graphically expresses the condition of his inner discord. The pairs of opposites which in a harmonious personality are most intimately united become separated and manifest themselves in opposed tendencies, as for instance love and hate, weakness and strength, good and evil, willingness and unwillingness; that is, a positive and a negative attitude. When both aspects of these opposed tendencies are active in consciousness they interfere with one another and create conflict and indecision. When one tendency gains the ascendancy and determines action it will be immediately followed by its opposite, which will question and attempt to nullify and discredit the previous opinion or action. This can exist in a very serious degree, creating great conflict in the personality. It may be that the opposites are both equally strong and in such a case no decision can be reached and the individual becomes quite incapacitated for real life. The pairs of opposites are known in psychological terms as ambivalence of the emotions, by which is meant that every emotion has its opposite with which it is closely associated. Under certain conditions a separation may take place and this separation is a far more common phenomenon in present day humanity than the state of unity.

In discussing the peculiar quality of the happiness that religious experience produces, William James describes it as "parted off from all mere animal happiness or enjoyment of the present by an element of solemnity." Then he goes on to describe what he means by this in these words: "A solemn state of mind is never crude or simple, it seems to contain a certain measure of its own opposite in solution. A solemn joy preserves a sort of bitter in its sweetness." In these few words James

has touched the root of the process effecting that transformation of personality which a genuine religious experience induces, and the consequent attainment of happiness through this means. It is a way of producing a new fusion or unity between the pairs of opposites. This is exactly what analytical psychology strives to help the individual to attain. Through searching out that which is inferior, or low, in the personality, whether it is manifested in consciousness or buried deeply in the unconscious, it becomes possible to bring about a transmutation and through this a higher integration of the components of the psyche.

There is still another important aspect of the analytical process which I have not touched upon, but which plays such an overwhelming rôle in the total results that I cannot ignore it. This is what is known technically as the transference. The higher work of analysis depends so greatly upon the character of this factor and at the same time its meaning is so fraught with misunderstanding, that an attempt at elucidation seems necessary. Here again, in the practical work of analysis, we have a condition which closely approximates to religious experience as recorded by those who have lived it so that the desired results are attained. In the New Testament we see the whole emphasis placed on the feeling of love in the service of humanity and the development of the individual. Love for God and love for man is the great message repeated over and over again. On the other hand, we observe that there is an entire absence of even reference to the sexual element which, in a book intended to embrace the entire life of humanity, is a conspicuous omission. For certainly mankind has had no more difficult problem to meet than the management of his sexuality; and his tendency to go to extremes, either of ascetic renunciation or of complete surrender to its claims, is marked upon the pages of his history. Following this ignoring of the sexual problem by the Christian teaching, we see that all the efforts of the early Christian followers were centred upon the repression of sexuality and the development of the psychic function of love, apart from its physical aspect. Surrender of self to love of God, the ideal, and to their fellow-men on terms of equality, was the goal towards which all the faithful aimed. The questionable success of this effort in the lives of many of the saints is obvious to any one who studies the language and phenomena descriptive of their experiences. Nevertheless it is a well attested fact that those who have attained to that religious happiness and sense of well being, which has resulted from the winning of a new level of integration, have all experienced the feeling of a great love for

the divine object with a complete surrender to it, and a consequent overflowing of that feeling to all those around them.

The same great enhancement of the physical and mental state, although generally of a more transitory character, is also observable during the period of a full surrender to love for a human object. The new level of power and well-being attained by the lover, and the involuntary response of others to his joy, is a well-recognized phenomenon, "All the world loves a lover." The difficulty of maintaining this condition is due to the reality problem which enters into all human relationships. The beloved object is human as well as the lover, and therefore there are mutual conditions and demands to be fulfilled which exert a claim. The discovery may be made that the beloved possesses qualities or attributes which seem not at all loveable or desirable, yet which must be accepted if love is to be maintained. The ideal image is broken and reality must be met. Now it is a fact that there are two models on which practically all love relations are based, one is that of child to parent, and the other that of parent to child. The first is the stronger because it is the original relation in which love was first experienced, and few have reached that stage of emotional development which is necessary for an equal love. The parent-child relation is the other aspect of the purely biological stage, and between adults in both these phases sexuality enters into the problem. For this is definitely a function of reality and when sexuality is depreciated or not rightly understood, the sexual object must likewise share in the depreciation. For these reasons the love of God, a being in relation to whom the problem of equality or finite reality does not enter, once completely achieved can be more easily maintained, while the love for the human being is held with difficulty. Man's longing for perfection, for power, for love, for understanding are all embodied in the person of the Omnipotent; no fault can be found here, therefore any failure to attain the great values bound up in the love for God can only be due to the weakness and faultiness of the devotee. In creating a God so far beyond himself, who at the same time is to be loved as a transcendent father, man gave expression to a factor of great significance for his development. Through the total surrender to love entirely separated from sexuality a unification of the pairs of opposites takes place, but the ego can only surrender its claims to an object where there can be no question of rivalry. Therefore the object must be elevated to a supreme position, unassailable, and of such a nature that no comparison is possible. When this God was a living, vital reality to man his value was unlimited; but when the intellect, the offspring of the ego, entered in to question

and examine and reduce the supreme object of his faith and love to an objective reality, the power and value became correspondingly reduced. Love and reason have not yet learned to serve the same master. In the analytic process we have a situation which in a manner also approximates the child-parent relationship. The individual seeks analysis usually because he is in need. He is either sick or in trouble, or he has become painfully conscious of his inadequacies and failures and is searching for some help. The analyst appears understanding and interested. He listens attentively to all the details of the patient's story and is not bored, he even asks for more, and is not critical. Gradually in the relation developed all the weaknesses and carefully hidden sore spots are shared. It is as though a loving, watchful human parent who never interfered with one's desires were standing behind to lend aid when called upon, and on to this person are transferred insensibly the tender feelings and the imagery with which they are associated, bound up within the personality since childhood. The personal attitude of the analyst encourages this transference, for making no demands or claims for himself, remaining outside of any personal relation, and using the love called forth from the patient entirely for the latter's benefit, he becomes a suitable symbol around which all the repressed feeling life of the patient can revolve. It is through this capacity of the analyst to serve as a love object upon whom can be projected superior attributes and who at the same time can be entirely human, that the expression of the erotic feelings can take place thus enabling them to be worked through. In avoiding the mixing of his own personal problems with those of his patient and remaining impersonal and inaccessible himself during the analytic period, the analyst renders it possible for the patient to use the situation to work out his inner problems in relation to the external world and himself. The very one-sidedness of the relation coupled with the knowledge on the part of the patient that the sole interest of the analyst lies in helping him to attain the purpose for which he undertook the analysis, is the important factor. It gives the analytic relation a unique character and renders it quite different from any other, and in this difference lies its advantage over the ordinary human relationship.

It is certain that without the occurrence of transference no real benefit can be obtained from the analytic technique. Therefore we are justified in claiming that it is through the love function and its capacity of transformation to asexual aims, similar to that which takes place in a religious regenerative experience, that the work of analytic re-integration can be achieved. The great distinction between the two methods

lies in the attitude towards the repressive mechanism. In the former repression is erected into great barriers which effectually conceal from consciousness the source from which man's hardly won achievements spring; in the latter, the repressions are released in order to allow self-conscious man the opportunity of dealing with his infantile wishes face to face, and of consciously directing the application of the libido instead of giving it over to the unconscious transformation.

Although the transference occurs in the case of everyone to whom analysis can be of any value, nevertheless it is not the simple matter which it might appear to be from this brief description. It is sometimes resisted with all the energy available. The intellect and reason recognize an absurdity in the situation, and the ego shrinks from surrendering its supremacy. Besides, the necessarily unresponsive attitude of the analyst who may not allow himself to be flattered or won by the attentions and claims of the patient, produces a great resistance of the ego which feels rebuffed or humiliated. It is this situation that very often brings up the resistances which have not appeared before and the analysis of these, in whatever guise they appear, constitutes the analytic side of the work. Instead of the analyst appearing a superior being, as perfect as is possible for a human to be, he now appears unkind, or unworthy of the patient's love. The patient feels he has been disappointed and cheated; in short, all the feelings and difficulties which he has experienced earlier in connection with his love are now projected, referring back to the parents for whom an equally ambivalent feeling was held—love and dependence on one side, hate and antagonism on the other. And in the immediate emotional situation, the purpose for which the analysis was undertaken is quite lost sight of.

It is largely on the ability of the patient to understand and gain an insight into this condition and on his willingness to work through all the painful situations as they arise, that the success of the analytic work depends.

Gradually the patient comes to realize that the projection of a phantasy picture determined by his own emotional development on to reality is hardly a satisfactory form of adaptation. As the majority of the ills of mankind cluster around the problem of human relationships, the working through of the transference and its final dissolution brings an entirely new attitude towards one's fellows. In place of criticism or fear there is felt charity and consideration, for one has come to realize the common bond uniting all, and can replace belief and phantasy by knowledge and understanding.

It will be seen from this brief description of the deeper meaning of the analytic process that it is a work of the greatest complexity and difficulty and not to be entered into lightly. It demands a reverent and serious attitude towards life and towards one's self. The value and benefits gained depend entirely upon the capacity and attitude which one brings to the work.

I do not for a moment wish to convey the impression that the serious process I have discussed is necessarily what is popularly known as being analyzed. Analysis lends itself to the needs of the individual and does not force anything upon him. He may have some special symptom or problem for which he wishes the aid of analysis, and when this is relieved, so far as he is concerned, the analysis is over. Or, he may simply want to satisfy his curiosity about a subject which has become popular,—too popular at the present time—whereupon he can find an analyst from whom he can obtain just that for which he is looking. There are many degrees of analysis, and the deep searching and fundamental work referred to in this paper is only for those who are really seeking a new attitude towards life, a new attitude towards themselves, and who are willing to seek for the solution within their own souls rather than in the external changes of form and society. However, psychoanalysis is no panacea or magic wand by which the ills of humanity are suddenly to be healed. It makes great demands upon the individual, and can brook no deception nor pretence of any kind, for any playing or pretending with so serious and potent a weapon can only bring disaster. Neither is it applicable to all people; it requires a certain development and capacity for understanding, and it is the business of the analyst to recognize in the beginning whether or not a person is fitted to undergo this treatment. It is not an intellectual training nor primarily an education, but an emotional experience, although coincidentally the intellect can be set free from its emotional connection. This fact accounts for the great difficulty experienced in trying to give any clear and general understanding of the psychoanalytic process, for it is an individual experience dependent for its specific features upon the particular needs of the patient, and guided along such lines as his individual development suggests.

I am well aware that the drawing of an analogy between the religious teachings of Christianity and the emotional experience passed through in analysis, will evoke small thanks either from psychoanalysts who are striving to obtain the consideration of objective science, or from those strictly scientific workers who have no interest in anything which cannot

be counted and measured, and who will feel that their worst fears of this 'dogma' are justified, and that it is 'nothing but' a religious matter after all.

Well, we might as well admit—if Kant's restriction of empiric science is accepted—that psychoanalysis is not a science, for it deals with and its conceptions are based upon, purely subjective phenomena which cannot be perceived through the senses. Nevertheless, it makes use of a scientific attitude towards the material, although no rigid formulation can apply to a work which involves the reactions and attitudes of the human organism as a whole, instead of one of its parts. Perhaps some understanding of its relation to science may be found in the objectification which it brings to subjective experience, and the discovery of the springs of action; on the other hand, it allows the possibility of a new recognition of the significance and validity of the spiritual phenomena insisted on by religion. Thus it stands as a bridge between science and religion, holding with one hand to science, and with the other stretching out to clasp those human experiences, which belong to a psychological reality and which have hitherto been relegated to the domain of mysticism.

As a method it attempts to reproduce that deepening, broadening and developing of personality through a conscious willed effort at self-creation, which should be the result gained by man through the significant experiences of life. Such a development, painfully and slowly achieved has often caused man's tragic lament, "now that I have learned something of how to live, it is time for me to die."

Analysis attempts a short-cut to this achievement, so that a man may find himself ready to understand life while understanding is still a joy, and able to live while life is yet full within him.

TWO CASES OF WAR NEUROSIS<sup>1</sup>.

By JAMES YOUNG.

As the field of the war neuroses is such a wide one, it is not possible to deal with it in anything like a comprehensive way in a discussion such as this<sup>2</sup>. Perhaps the best thing I can do will be to give a short description of two cases. In this way I hope to indicate in more or less rough outline the Jungian interpretation of some of the phenomena of the war neuroses, which I understand is my function in this discussion. Both belong to the type called anxiety neurosis. The chief characteristics common to them are violent fear and vascular disturbances such as palpitation, feelings of flushing followed by cold sensations, bursting feelings in the head and undue sweating. The first man T.S., aged thirty-nine, was a private with the same battalion in France for almost four years. This is an exceptionally long time to be with a battalion without 'going sick.' Some little time before the armistice he began to show signs of wear and tear and was forced by his N.C.O., much against his own will, to 'go sick.' He has never been right since, to use his own words. When I first saw him some six weeks ago he looked pale and ill, with mask-like face and trembling lips. His eyes filled with tears and his voice shook when he spoke, or was spoken to. He complained that his own thoughts about the most trivial matters gave him palpitation.

The ordinary interests of life had failed him or had assumed a hostile significance. He was exceedingly sensitive to the noise made by his three children. He was, in his own words, a "mass of nerves" to such a degree that, although unhappy, he felt best when in a room by himself. I soon discovered that he was glad to talk about the war, and that he was proud of having stuck to one battalion so long. I found, however, that such reminiscences always led to the subject of 'schemers.' By 'schemers' he meant men who 'went sick' on the smallest pretext and thus avoided facing the music. In my own experience a more common term was 'skrimshankers.' Since the war he

<sup>1</sup> Read before the Medical Section of the British Psychological Society, 14 December 1921.

<sup>2</sup> At this meeting the Freudian point of view was given by Dr G. H. Fitzgerald in his paper entitled "Some aspects of the War Neuroses," published in the January number of this *Journal*, p. 109.



had met men who had once been in his battalion and for one reason or another he had found them all wanting—they were all ‘schemers.’ This was bitter in itself, but the bitterness was increased by the fact that these men had been in good spirits and prospering, while he himself was struggling with unemployment and a general difficulty to make ends meet. His first dream was that he was covered with ‘scabs’ and that I, the analyst, was going to cure him with high power electricity. In my experience dreams of this type have to do with what may be called the problem of evil. They are always accompanied by a great sense of inferiority. In this case this is due to the fact that the patient has the ‘schemer’ in himself. Now we understand his great preoccupation with ‘schemers’ in general. His preoccupation is the result of an unconscious identification. ‘Schemers’ represent for him fear, cunning, ruthlessness, etc. They are embodiments of evil. His concern is with evil existing at present. It is not a harking back to specific incidents in connection with malingering in himself or others, an idea so beloved of the ‘Puzzle, find the buried memory’ school. ‘Schemers’ became for him the symbol of all those forces subversive of society, which he has become aware of in himself and in others as forces acting in humanity in general. He says, with a hopeless gesture, “The Germans were just as good as we were; just as good soldiers, just as good men.” This from a man who fought them for four years with whole-hearted determination! Here the patriotic view becomes swallowed up in a wider vista. The suspicion is expressed that all men are in the last resort the instruments of blind and uncontrollable forces. The field of conflict is a very wide one and embraces the deepest moral and religious questions. The conflict has to do with the acceptance of and adjustment to those forces of evil in the world which for him are immoral and irrational.

He needs a new orientation. He can take no temperate view of his own nature or that of others. He, so to say, will not allow himself a quantum of human failings. He is devoid of a sense of humour. He is inhuman, or rather I should say, not averagely human. In other words, the personality is very narrow and limited, although at the same time conscientious to the last degree. The keynote of the personality is duty. He was a pre-eminently good soldier. His whole ideal of himself was orientated to one purpose only—the fighting of Germans. No situation could be equivocal with such concentration of purpose. He always knew what to do and so the happiest period of his life was that spent in the army. Without doubt his was the type which won the war. Nevertheless it must be pointed out that with this spotless, devoted, in some ways

sublime, personality, is bound up his self-love. The persona, as Jung calls the personality, is in my opinion essentially narcissistic. Standing firm in the persona or clad in it (because the persona in dreams is often represented by costume of a certain type) we vindicate ourselves. The persona may be said to be the external attitude or surface contact with reality and as such may be represented in the unconscious by the clothes or even by the skin. With the persona, let us say, of the doctor, our self-love tends to writhe and wriggle if we are mistaken for a bookmaker's clerk. It tends therefore to love only that which mirrors itself. It is the persona, then, which in this case is represented as being covered with scabs. It is possible to regard this invasion of the spotless persona by the loathsome skin disease as the incursion of those unconscious forces in himself which are repugnant to his conscious standards. The psychological process thus represented, takes place in accordance with the general law that sometime, somewhere, everything must meet with its opposite. This is the law of enantiodromia. In connection with it the common saying 'Extremes meet' occurs to the mind. It is the inevitable result of the morbid one-sided development of the personality to which Jung refers in his article on "The Question of the Therapeutic Value of Abreaction," in vol. II, part I, of the *Journal* of this Section. Such dreams are indicative of a psychological deadlock. A struggle is being maintained between the persona and the unconscious. There is little libido available for objects and relationships in the outside world. These now only elicit forced or even negative interest. There is little rapport and there may be delusions of reference. In the case in question, there were suicidal ideas at this time. This is understandable when one considers that the inviolable persona is beset and in danger of being overwhelmed both from within and without. The menace from the unconscious has its counterpart in the menacing appearance of the everyday world. They are both aspects of the same thing. The patient finds evil within and without. The teeth and lips are more firmly set. The expression becomes more mask-like. The same resolution is summoned which he used against the Germans. Now, however, he cannot find a point of application for it as the enemy is an intangible one. The effort therefore simply serves to drain him of energy and the concomitants of this are the obscure vascular and other disorders of function to which I have referred.

His next dream was of "black men coming to kill him in the most blood-thirsty and savage manner." This is another representation of those primitive unconscious forces with which he is beset. The question

arises, how is he to come to terms with those autonomic forces, represented by the black men, which threaten to overwhelm him? It is only in so far as he is so identified with his persona and clings to it with all the tenacity of narcissism, that he is in the grip of unconscious autonomic forces. This constitutes the deadlock to which I have referred. The third and last dream of this patient which I shall quote is the following:

"The leader took us down the road leading into a wood. As we were entering the wood we were ambushed by Sinn Feiners. One of them told us to lay down our rifles and the leader, a corporal, complied with the order. A man, who was supposed to be a scout for us, ran into the wood as if to join the Sinn Feiners." In relating the dream the patient implied that there was a certain amount of complaisance about capture on the part of the corporal and that the scout frankly went over to the side of the enemy. There is therefore not the same deadlock which is represented in the preceding dream. It is as if the possibility or the need to yield were mooted. The idea of a surrender to the unconscious forces, here represented by the Sinn Feiners, is germinating. These forces of evil, inimical to his conscious estimate of himself, should be included as an accepted content in consciousness. It has already been said that these forces have their counterpart in the objective world, again as those qualities of human nature and of those aspects of human existence which appear inimical and perverse to the patient. Only after surrender to, or in other words, acceptance of these forces, can a new point of orientation be reached. Psychologically, this process must not be regarded simply as a passive process, but rather as an active affirmation of human nature as it is, and not an expurgated edition of it prescribed by some rigid moral or aesthetic code. This involves a sacrifice or renunciation of certain cherished ideals, wide enough in theory perhaps, but limited in application. It therefore has the quality of a moral act which gains its motive force from a new and wider understanding. The possibility of the acquirement of the latter must of necessity rest with the physician and success or otherwise will depend as much on his general knowledge and experience of the world as on his ability to give form and enduring value to the *progressive* and *constructive* tendencies which appear from time to time in the unconscious material of the patient. Thus, in general, is the bigoted, narrow and morbid attitude replaced by a sound new attitude. Energy which had been draining away in negative emotions is thus conserved and is now available once more for the ordinary activities of life. The conservation of energy effected also brings about a better

physiological, as well as psychological functioning. In the case in question this improvement is beginning to take place.

The second case to which I wish to refer is that of a sergeant-major, aged forty-five, who developed an anxiety condition towards the end of the war. He had not been abroad but was instructor in a training centre in England. His chief trouble before his breakdown seems to have been due to the fact that his officers had not quite such rigorous ideas about discipline as he himself had. He felt he was unsupported by the officers in his efforts to maintain discipline. At the same time he complained of being blamed for incidents which he considered arose out of the inattention to discipline which he deplored. It was certainly a difficult position. It ended in a breakdown. He had been sleeping badly, worrying over trifles, ever since. Lately he had had suicidal ideas. The first dream he brought was, "I saw ballet-girls dressed in large shield-like arrangements, walking in half-sections, a policeman escorting them." Unfortunately this is a dream which I did not analyse, so I cannot throw any light on the shield-like arrangements. But I think, taken as it stands, it gives a clue to the situation. It is possible to regard this manifest content as a representation of his own jockeying, disciplinary and regular attitude, symbolized by the policeman, towards his own feelings of a more free, spontaneous and irregular character, symbolized by the ballet-girls. I shall not attempt to elaborate this idea further. Much emerged in the course of treatment which would support and confirm it. In fact it may be said that in a realization of this lay the way to a cure of his neurosis. It is also a significant fact that on the two nights succeeding this dream, he dreamt of policemen.

Both of these cases of war neurosis in my opinion have arisen in consequence of an already existing neurotic attitude. They bear out Jung's dictum that in the greater number of ordinary cases of neurosis there is no traumatic aetiology, in the sense that the origin of the neurosis can be traced back to one specific incident. This view has been and still is very widely held and the so-called buried memory is often ardently searched for and usually found! But to quote Jung's paper already referred to: "In order to create the impression that the neurosis is derived from a traumatic moment, inessential secondary occurrences must, for love of the theory, artificially be brought into prominence. As a rule these traumata, when they are not mere artefacts of medical phantasy, or from other reasons dependent on the compliancy of the patient—are secondary events, consequences of an already existing neurotic attitude." (Here it may be said that the sergeant-major found

the actions of his officers unbearable. In a sense therefore they were traumatic or causative but only effective in so far as a one-sided neurotic attitude already existed in the form of an over-sensitiveness to authority in others, and an over-valuation of authority in himself. They were therefore only secondary.)

"The neurosis is, as a rule, a morbid one-sided development of personality, arising from very slender, indeed ultimately invisible beginnings, which can be followed back, as it were indefinitely into the earliest years of childhood. An arbitrary judgment could alone decide where such a neurosis really begins. If its determination were shifted back into intra-uterine existence, thereby involving the physical and psychical disposition of the parents at the time of pregnancy and conception—a view which in certain cases seems not improbable—such a standpoint would, in any case, have more justification than the arbitrary selection of a definite point of neurotic origin in the individual life of the patient."

The danger of the trauma theory seems to me that the physician's preoccupation with the need to find a *specific incident in the past*, blinds him to the general attitude of the patient towards the 'here and now,' in which the main cause of the neurosis lies. The truth is that the idea of the 'buried memory' has been pushed to ridiculous extremes. It makes the problem of war neurosis appear so easy that one might well wonder why there are any neurotics left at all.

To quote again from Jung's article: "It is self-evident that the cathartic method (abreaction), when dealing with ordinary neuroses, will, as a rule, meet with poor success. Since, in general, it has nothing whatever to do with the nature of the neurosis, the schematic application of the method is, in such cases, quite ludicrous. Even when apparently partial success is obtained it can have no more significance than would the success of any other method that admittedly had nothing to do with the nature of the neurosis. The success is due to suggestion. It is often of very limited duration, and clearly accidental. This success arises always out of the transference to the physician, which is established without too great difficulty if only the physician has an earnest belief in his method. Because it has just as little to do with the nature of the ordinary neurosis as, for instance, hypnosis and other such remedies, the cathartic method has with only a few exceptions long been abandoned and replaced by analytic methods."

In conclusion I should like to say that in my opinion the stress and strain of war simply unmasked a tendency to neurosis or rather fulfilled the potentiality of neurosis in a great many people, who up till that

time had been considered 'normal.' No one theory will satisfactorily explain all the facts of the war neuroses. In the end in many cases we are brought face to face with the ultimate consideration of the personal factor, after we have dealt with the factors of environment and experience as far as may be. This factor is particularly evident in the case of those nondescripts who under the all-embracing shelter of the term war-neurosis, cloak an innate ineptitude and feebleness in face of the ordinary problems of life. In an article written two years ago<sup>1</sup>, Dr Nicoll and I stated that any form of treatment which gives some adequate explanation—one carefully adapted to the intelligence—will be of use. A good transference and a suitable explanation will effect relief in a great many cases. I am inclined to think, however, that a certain proportion must be allowed to find their way back into life in their own way.

<sup>1</sup> "Functional Nerve Disease." (H. Crichton Miller.)

## NOTE ON THE MENTAL AFTER-EFFECTS OF SLEEPING SICKNESS IN SCHOOL CHILDREN.

By CYRIL BURT.

IN a recent article in *The Lancet*<sup>1</sup>, Dr Donald Paterson, the Medical Registrar at the Great Ormond Street Hospital for Children, working in collaboration with Dr Spence, of the Children's Department at St Thomas's Hospital, has published and discussed some interesting records of the after-effects of epidemic encephalitis lethargica in children. In such diseases the question invariably arises as to what is the chance of complete recovery, and what is the likelihood of some degree of physical or mental impairment. In previous epidemics no records appear to have been kept which enabled a satisfactory answer to be given to this question.

Dr Paterson and Dr Spence selected 25 cases between the ages of 3 months and 11 years in which the diagnosis appeared to be incontrovertible. They carefully excluded all patients who, before the onset of the illness, were not of normal health or intelligence. The selected cases they followed up for a considerable period after leaving the hospital.

Their conclusions are as follows:

In the majority of cases epidemic encephalitis in children is followed by permanent after-effects, either physical or mental. In only 25 per cent. of the cases in their series was the recovery complete.

In about 30 per cent. of the cases organic residual paralyses persisted after the original illness, the cases showing such conditions as hemiplegia, spastic diplegia, symptomatic paralysis agitans, muscular rigidity and tremors. In general, however, all the children seem well-nourished and have preserved the ability to gain weight and thrive.

The most significant results, however, are to be seen in the mental condition of the children. These observations are of especial interest. Recently, imbued with the importance of inherited mental defect, psychologists have been prone to attach less weight than formerly to diseases of the nervous system supervening during childhood as a factor

<sup>1</sup> "The After-Effects of Epidemic Encephalitis in Children," by Donald Paterson, M.B., B.Ch. Edin., M.R.C.P. Lond., Medical Registrar, Hospital for Sick Children, Great Ormond Street; and J. C. Spence, M.C., M.D. Durh., M.R.C.P. Lond., John and Temple Research Fellow, Children's Department, St Thomas's Hospital. *The Lancet*, Vol. II, 1921, p. 491.

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in the causation of mental deficiency. Here we seem to have definite evidence that children, who would otherwise have grown up into normal and intelligent adults, are converted into mental or temperamental defectives by the misfortune of brain diseases in early years. Among the 24 surviving cases the mental condition was affected in 18. Of these, seven are grossly mentally deficient and in a state of permanent and hopeless idiocy. Others show minor degrees of mental derangement.

The eventual condition seems to depend very largely upon two factors: firstly, the severity of the initial illness, and, secondly, the age of the child when first attacked. After a short illness, the stupor lasting for a few days only, the child as a rule completely recovers. If the lethargy persists for three or four weeks, then mental deficiency may be expected, at any rate if the child is young.

Even more important seems to be the influence of age. The younger the child, the more serious the after-results. If we analyse the table of results which the investigators publish, it would appear that in children under 3 years gross mental deficiency is likely to ensue. With children aged between 4 and 8 the milder degrees of dullness, backwardness, and such lighter grades of mental deficiency as are characteristic of special schools are apt most frequently to be found. With children aged between 8 and 12 there may be a slight retardation in general intelligence, but the chief disturbance is one of temperament and character. The child may become emotional, irritable or restless, or develop delinquent propensities, such as petty violence, mischievousness, and perpetual pilfering.

Those who have to deal with cases of juvenile delinquency will realise the importance of these results. In a small but appreciable proportion of such cases that come under official notice on the ground of criminal tendencies there is a history of encephalitis or similar disease, and before this investigation was made it was difficult to know how much weight should be attached to this incident as a causative factor in the mental change.



## REVIEWS.

*An Introduction to the Psychological Problems of Industry.* By FRANK WATTS, M.A. (Allen and Unwin. Price: 12s. 6d.)

This is one of those books which are somewhat difficult to review simply because the author nowhere indulges in rash or controversial remarks towards which criticism can naturally be directed. Mr Watts is unusually well equipped for the writing of a book on this subject since, in addition to an extensive knowledge of general psychology, he has enjoyed exceptional opportunities for studying the practical working of psychological methods in industry.

Too many workers in this field have fallen into the error of aiming solely at the immediate and tangible objective of greater output. It is certainly desirable to increase the amount of work which can be done for a given expenditure of energy, always provided that this does not lead to unfair exploitation of the workers: it may even be advantageous to increase the absolute output if certain conditions are fulfilled. But always, and in all circumstances, there are aspects of industrial psychology which are of infinitely greater importance. These have been extensively neglected in the past and attention has, as a rule, been directed to far too limited a field. Mr Watts successfully avoids this error: in his chapters devoted to "Scientific Management and Labour," "Industrial Unrest and Ideals in Industry," he proves that he has a wider and finer conception of the part which the psychologist is destined to play in the industrial system than have those whose horizon is limited by methods of 'opening up' or by vocational tests.

The book is, moreover, eminently readable and can be cordially recommended to all who wish to acquire a sound general knowledge of the subject, whether from the industrial point of view or as psychologists.

W. WHATELY SMITH.

*Nerve Exhaustion.* By SIR MAURICE CRAIG, M.D., F.R.C.P. (London: Churchill & Co., 1922. Pp. 143. Price: 6s. net.)

In this book of 143 pages Sir Maurice Craig has given a comprehensive description of the causation, symptomatology, and treatment of nerve exhaustion, which is primarily intended for the medical practitioner who is unversed in psychology. In the chapter on causation he lays considerable stress on hypersensitivity as a predisposing factor, and depicts in some detail the pitfalls which beset both the sensitive child who is educated with a view to obtaining scholarships rather than to formation of character, and the adult who, by injudicious choice of his recreations, aggravates the fatigue occasioned by working at high pressure. The chapter on symptomatology contains a very extensive list of symptoms, both subjective and objective, including some dissociation-states and regressions, and leaves us with the impression that the author regards exhaustion as the principal causative factor in minor mental disturbances. This chapter also contains a short description of some of the neural mechanisms involved; some statements are found in it which will hardly

escape challenge, *e.g.* that "reflex actions have no psychical concomitants," and that sensory and motor apraxia are disorders of volition. A concise account is given of the reactions of conditioned reflexes, which have received curiously little attention among psychologists in this country, but it is a little difficult to see how "they may explain much of both the psychic and physical phenomena in any given case" without showing the case to be one of faulty development rather than of exhaustion.

An extremely valuable chapter is devoted to sleeplessness and its treatment, in which Sir Maurice deprecates the unreasoning fear of hypnotics which so many of the profession experience, and he gives a summary of the sedatives in common use with their relative indications which will probably be of greater value to the practitioner than any advice hitherto available.

In the chapter on treatment the methods of persuasion, suggestion and psycho-analysis are considered in turn; none of the three receives any striking tribute from the author, but on the whole he seems to prefer the first. His criticism of Freud will probably be concurred with by many psycho-therapists who employ analytic methods, but it appears to be directed only at the complete Freudian method, which he summarises as being "certainly not a form of treatment to be lightly recommended." As might be expected from his belief that exhaustion is the predominating factor, rest and muscular relaxation figure largely in the methods of treatment which he recommends, but there are important departures from the Weir-Mitchell routine, as he is averse to isolation, and to massage except in convalescence.

One cannot help feeling that the value of this book would have been increased if Sir Maurice Craig had adopted the suggestion made to the section of Psychiatry by its president last year, and forbidden himself the use of the word *nervous*, replacing it by the words *mental* and *cerebral* as the sense demanded. The main difficulty with which the reader is confronted is that of determining from page to page, whether the author is referring primarily to psychogenic or somatogenic processes. In the first page of the book he remarks that "primarily the fault may lie either in the physical or in the psychical domain or partly in both," but beyond this reference to the multiplicity of factors there is no clear indication as to whether he regards the individual symptoms which he is describing as sequelae of cerebral fatigue, or as the somatic end-result of excessive psychical activity, and there is little recognition of the idea that a discrimination of these factors has an important bearing on the prophylaxis and treatment. This attitude might suggest that the author subscribed to the doctrine of psycho-physical parallelism, but that this is not the case is shown by his quoting with full approval Dr Langdon Brown's statement that the various emotions can lead, through the sympathetic system, even to structural change.

The title of the book contains in itself an element of controversy, and recalls the conflict of opinion occasioned by the introduction of the term "Exhaustion Psychosis" into psychiatry. The arguments adduced by Stanford Read in his *Manual of Military Psychiatry* against the adoption of this term are equally applicable in the case of many of the conditions here described as symptoms of nerve exhaustion, especially in highly complicated mechanisms such as fugues and dissociation-states.

The feature of the book which is likely to cause most disappointment to many of its readers is the absence of the underlying idea of *purpose* in the evolution of neurotic symptoms, which has been found to throw so much light

on their mode of production and proved so valuable a guide to their treatment. Sir Maurice Craig has undoubtedly succeeded in his expressed aim of keeping the book as free from technical terms as possible, and as a manual of mental hygiene it should be of considerable value to the practitioner.

N. HOBHOUSE.

*Medizinische Psychologie. Ein Leitfaden für Studium und Praxis.* By DR ERNST KRETSCHMER. (Leipzig: Georg Thieme, 1922. pp. 300.)

There is an increasing recognition of the need for a psychological training for students and doctors of medicine, a need to be met only by a psychology, based indeed on medical practice, but ranging beyond the sphere of medicine and the natural sciences, and including within its scope the problems of ethics and aesthetics, racial development and the theory of knowledge.

It is Dr Kretschmer's endeavour to show the organic connection between these two spheres of knowledge and, since, in the interests of the already overburdened medical man, it is necessary to condense the material into the smallest possible compass, that part of psychology which bears directly on medical practice has been placed in the foreground, the outlook upon other psychological problems being merely indicated in passing.

An attempt is here made to differentiate on an evolutionary basis certain fundamental biological mechanisms and types in the higher mental life, having regard to the anatomical and morphological aspects. No sharp distinction is drawn between normal psychology and psycho-pathology, for the same fundamental mechanisms are met with in dreams, in artistic creation and in folk-psychology as in schizophrenia and neurosis—in hysterical and catatonic conditions as in the modes of reaction observed in animals and children. Prominence is given to the psychology of the neuroses, of hysteria and the milder borderland states of schizophrenia and paranoia. "The psychology of the neuroses," says the author, "is that of the human heart, and he who understands them understands *eo ipso* humanity." Most space therefore has to be devoted to the affective and dynamic aspects, the analysis of the higher intellectual faculties being left for the most part to pedagogic psychology.

While acknowledging the debt of medical psychology to the psycho-analytic school and in particular to the fruitful theories of Freud, Dr Kretschmer makes use of no psycho-analytic data such as he himself or other non-analytic investigators have not personally tested.

It is hoped that this attempt to present in a systematic form the medico-psychological knowledge of the day may serve as an incentive to specialists in psychiatry and psychology, and that reduction to a few fundamental biological mechanisms may make clinical instruction in psychiatry more comprehensive to students. The purely practical sections are meant to meet the needs of beginners in medical psychology, but the author presupposes a certain familiarity with the most generally accepted ideas and the most common forms of illness met with in psychiatry. For those without clinical knowledge an explanation of the more important technical terms is appended.

C. M. B.

*Benign Stupors.* A study of a new manic-depressive reaction type. By AUGUST HOCH. Pp. 278. (Cambridge University Press. Price: 14s. net.)

This is a posthumous work, completed and edited by Dr MacCurdy. Indeed, we are told that Dr Hoch is fully responsible for only the first four of the fifteen chapters, and we hope we may be pardoned for saying that these chapters are the least interesting in the book.

The author begins by striking a severe blow at our narcissism by telling us that little light has been thrown on the subject of stupor since Newington wrote his paper in 1874; but in this book he announces some great discoveries. The chief one is that some stupors are benign, *i.e.* they get well, another is that not all stupors are cases of dementia praecox, but some belong to the 'manic-depressive' group; and these pronouncements set us wondering whether there is a single psychiatrist in this country, old or young, conservative or progressive, who ever held opinions to the contrary.

About nineteen cases of 'benign' stupor are well described and they nearly, if not quite, all would be described by our own psychiatrists as examples of acute confusional insanity, seeing that they are all initiated by some definite mental shock and exhibit symptoms of mental confusion, perplexity, imperception, disorientation and other characteristic phenomena of that mental disorder. In other words, the cases quoted are not examples of maniacal-depressive insanity as we understand it, nor is a single case of true anergic stupor reported, such as we sometimes, though rarely, find in a maniacal-depressive case.

We are prepared to admit that there is some resemblance between the make-up of some patients suffering from acute confusional insanity and of those suffering from the maniacal-depressive psychosis; but, apart from symptomatic differences, there is this: that in the former the malady is initiated by some present-day worry, shock or toxin, of which there is usually no history in the latter.

This difference has not passed unobserved by the author. Indeed, he supposes that he and his colleagues have been the first to notice it, for he mentions a paper by "Hoch, August and Kirby, George H.," published in the *Archives of Neurology and Psychiatry* for April, 1919, entitled, "A Clinical Study of Psychoses characterised by Distressed Perplexity." The latest British manual of psychiatry he appears to have read is Clouston's 1904 edition of his *Mental Diseases*.

In the later chapters attention is directed to the fact that the thoughts of stuporose patients are invariably associated with death—not fear of death, but a desire to die or the delusion that they are dead or going to die. This implies retreat from the world of reality, being placed in a coffin, buried in the earth and so forth—all these being symbolic of a return to the mother's womb, as indeed is the stupor itself; but we doubt whether there is sufficient justification for going farther than this and supposing that the wish for re-birth lurks in the unconscious of the patient during the stupor, although the notion may consciously arise after recovery.

The work concludes with chapters on "The Diagnosis of Stupor," meaning the diagnosis of the psychosis to which the stupor belongs; the "Treatment of Stupor" and an admittedly incomplete chapter on "The Literature of Stupor."

To the young psychiatrist who has studied his text-books we recommend

a critical perusal of this study of stupor, although there are a good many other American works that would repay him better.

W. H. B. STODDART.

*The Morphological Aspect of Intelligence.* By SANTE NACCARATI, M.D., Sc.D., Ph.D. *Archives of Psychology*, No. 45. (New York, 1921. Pp. 44. Price: \$1.10.)

In looking for correlations between physical characteristics on the one hand, and intelligence on the other, Dr Naccarati concludes that, since intelligence is a highly complex quality, any physical quality that is correlative to it must also itself be complex. He, therefore, endeavours to correlate with intelligence, not simple measurements such as height or weight, but relative measurements, in the form of ratios or indices.

Following the criteria for so-called "morphological types," devised for clinical purposes by de Giovanni and Viola, he uses, in the first place, what he terms the "morphologic index," which may be briefly described as the ratio found by dividing the length of the limbs by the estimated volume of the trunk (obtained by multiplying measurements in three dimensions for the thorax and the abdomen respectively). As a rougher measure, he uses the simple ratio of height divided by weight. These indices, and the chief original measurements, he correlates with the intelligence of his subjects measured by such tests as the Thorndike group examination tests for college entrants.

He finds that with 75 students thus measured there is a correlation between intelligence on the one hand and the volume of the trunk on the other hand to the extent of  $-.36$ . This is the highest coefficient he has obtained: it suggests that the most intelligent students have trunks of the smallest volume. His morphologic index, indeed, yields a correlation not quite so high, namely  $+.356$ . The correlation between the ratio of height to weight, on the one hand, and the ratio of length of limbs to volume of trunk, on the other, is  $+.70$ ; and this (in his view) entitles him to use the former and simpler measurement. Using this measurement with 221 students he obtains a correlation between the ratio of height to weight and intelligence which, though small, is positive and significant, namely,  $+.228$ . The diagnostic value of the correlation is, he admits, not very great, since the individuals with the highest morphologic index are likely to be pathological subjects whose trunk has wasted in consequence of such diseases as tuberculosis. But, allowing for disturbing factors of this nature, he believes his data justify an important and suggestive conclusion, namely (as he puts it) that "the microsplachnic type is hyper-evolute," or, in simpler language, that the man with the smaller trunk has the greatest intelligence. Both features he inclines to relate to the possession of an over-active thyroid.

CYRIL BURT.

*Strindberg und Van Gogh.* Versuch einer pathographischen Analyse unter Vergleichender Herausziehung von Swedenborg und Hölderlin. Von KARL JASPERS, Dr med., Professor der Philosophie an der Universität Heidelberg. (Arbeiten zur angewandten Psychiatrie hrsg. von Dr W. Morgenthaler, Priv.-Doz. an der Universität Bern, Bd. v.) Verlag Ernst Birchner Aktiengesellschaft, Bern. Preis: Fr. 6.

In this book, Strindberg's illness is discussed in a remarkably interesting manner, no opinion being given on his rank as a poet. That his mental peculiarities may stand out clearly, he is compared with three other eminent authors who suffered from the same disease: Swedenborg, who was of the same type as Strindberg, and Hölderlin and Van Gogh, who were by nature differently constituted. The results of the discussion are given in two chapters of great penetration, entitled "The Relation between Schizophrenia and Creative Work" and "Schizophrenia and the Culture of the Age." The observations on the connection of creative genius with the pathological, and the relation of our present cultural development to the abnormal, will be of not merely theoretical interest to all thinking people, but will help many to approach by a wholly new and original way certain vital and pressing problems.

*Handbuch psychologischer Hilfsmittel der psychiatrischen Diagnostik.* Aus der Sammlung des Instituts für angewandte Psychologie und aus des Literatur, edited by OTTO LIPMANN. Leipzig: Johann Ambrosius Barth, 1922.

The Psychiatric Section of the 16th International Medical Congress (Budapest, 1909) appointed a committee "to study normal psychic activities in their relation to psycho-pathological phenomena." This committee invited the *Institut für angewandte Psychologie* to cooperate in establishing a standard of normal values, in which task the handbook published this year by the Institute is intended to assist. The collection is confined to such psychological tests as have already been used, or at least proposed, for purposes of psychiatry and as are of value in the diagnosis of individual cases rather than in research into particular forms of disease. Max Isserlin, in an introductory paper on the nature and value of psychological expedients applicable to psychiatry, discusses at length the merits of "intuitive" and "objective" methods of psychological diagnosis, with special reference to the works of Kraepelin and Jaspers. There follows a note on the mode of arriving at normal values, the rest of the book consisting of a systematic collection of tests, with many illustrations and plates. An appendix contains various tables of tests and there is a full bibliography.

*Dreams and the Unconscious.* An Introduction to the Study of Psycho-Analysis. By C. W. VALENTINE, M.A. (Cantab.), D.Phil. (St Andrews), Professor of Education at the University of Birmingham. Christophers, 1921. Pp. 140.

Nobody who wishes to acquire any information about psycho-analysis need turn his attention to this book, for there is none to be found in it; but on those who, like the author, have heard or read a little about it and find it disagreeable and disquieting it may have a soothing effect.

An atmosphere of doubt and indecision pervades the whole book. This is partly due to the fact that the author does not know what psycho-analysis is or what is not psycho-analysis. This difficulty he has endeavoured to evade by "particularly trying to bring its doctrines into line with orthodox psychology" (p. 8)—a process which can serve no object but to undermine the influence of a new discovery by minimizing, depreciating, and ignoring all its specific contributions to our knowledge. It is one which, however, is psychologically interesting in that it appears to be exclusively characteristic of the "hypocritical English"; on the Continent, for instance, opposition to psycho-analysis is frank and outspoken, and no such ostensible compromises are met with as we find in Dr Valentine's book. This writer includes under psycho-analysis among other things, a kind of mental therapy (ab-reaction), known and practised long before psycho-analysis existed, from which all the peculiar characteristics of the psycho-analytic method are conspicuously absent; and also a technique which is probably as old as civilization itself, namely, moral persuasion and cheerful encouragement (p. 94, *Cure of a case of war-shock* by Dr Rivers). We are told that psycho-analysis "may proceed simply by talking over symptoms and their origins with the patient, trying to get him to probe his past for possible clues and in some cases suggesting possible explanations—a method obviously full of danger"; and that "another method of inquiry is the method of free association, in which the patient is encouraged to let his thoughts wander at will." The first is simply not psycho-analysis and the second does not describe it properly; in any case one would have thought that the practical objections to calling such diametrically opposed procedures by the same name would have been obvious.

The vagueness and uncertainty of the whole book is indescribable; there is hardly a sentence in it which is not expressed in hesitating terms. Thus we are told that the interpretation of a dream is "often best gained" by the one and only method, and that this process "sometimes" puts a different complexion on a dream; that there are "dreams on record which can be, partially at least, interpreted" in the Freudian sense; that a dream is "often" a means of guarding sleep and that this is "supposed to happen" under certain circumstances (whereas, though it may fail, it is the sole function of the dream); that an experienced psycho-analyst "can sometimes facilitate" the interpretation of a dream by a knowledge of "certain symbols fairly common in dreams"; also that "the dominant Freudian conception of dreams (so far as the dream has meaning at all) is," and so on. The author makes it perfectly clear that in his own view dreams have no meaning worth mentioning. "Even the latent content of some dreams is still somewhat trivial" (p. 89). "Much of the dream activity is probably due to chance associations of parts of the brain still partially active, and so many dreams may be of no real significance" (p. 114). It is quite evident from the author's attempts at analysis of one or two dreams of his own that he has not the faintest notion of penetrating beyond the fragments of quite conscious recollection of recent experience, often trivial, which are present in most dreams; and the reason why he cannot do so is also quite clear.

The reason is that a person cannot practise with any success a method in which he does not believe. "Unconscious mental process" is to the author a contradiction in terms; and he says "it is not necessary to regard unconscious desires and memories as similar to what we know as conscious experience" (p. 23). The psycho-analytic doctrine of the unconscious mind is here explicitly,

as it is throughout implicitly, completely set aside. Unconscious repression comes under the same ban. It is regarded by the author as a conscious process, or as a "habit which has become automatic" (p. 12). It is confounded with parental severity—a crude error with which we are now familiar—just as a "father (or mother) complex" is confounded with parental influence. There is not a word in the whole book to indicate that the author has ever heard of that corner-stone of psycho-analytic knowledge, the infantile attitude towards the parents, which we call the Oedipus complex.

Very little further examination suffices to show us why the author does not understand anything about psycho-analysis, or believe in it. It is the total absence in him of a scientific attitude of mind towards this subject. His whole interest is clearly directed to the question of what is moral, of what is "good" or "bad," in the various phenomena discussed. Pages are devoted to the discussion of "whether repressions are harmful"—a question that is futile, for it cannot be answered; it depends upon the nature and degree of the repression. He is thus prevented from recognizing the existence of it as a fact. This comes out most clearly in what he says about sublimation; the distressing notion that a sexual impulse, even in the broadest, most inclusive interpretation of the word, can have any sort of connection with art or religion or sport or work leads him to "suggest" with quite pathetic eagerness, alternative hypotheses, including "a specific impulse towards *crime*"—surely a new departure even for orthodox psychology. Finally, great anxiety is shown throughout that conclusions drawn from "persons suffering from nervous disorder" should not be applied to "normal" persons; for "abnormal sex experiences are a frequent cause of nervous trouble."

We have treated this book at some length because it shows in a glaring manner all the defects characteristic of the stream of little manuals on psycho-analysis now being published.

JOAN RIVIERE.

*Functional Nervous Disorders.* By DONALD CORE, M.D. (Manc.), M.R.C.P. (John Wright & Sons, Ltd. 8vo. Pp. xvii + 371.)

Dr Core has produced a very weighty volume in the best sense of the word, and the printers have followed suit in the literal sense. Presumably there is an economic reason for making books inordinately heavy, but the fashion does not commend itself to the reader.

Dr Core is no traditionalist—in fact, he is a good deal of an iconoclast. He has set out to establish a classification of functional nervous disorders that is completely his own, and to build thereon a complete system of diagnosis, prognosis and treatment. On the one hand, he has little to say about the somatic factor in aetiology, and on the other he has rather a short way with the psycho-analysts. But it must not be supposed that his criticisms are shallow or trivial: and, on the principle that fleas are good for dogs, all analysts—psycho- or otherwise—should read this book. The author is at pains to condemn the tendency towards "empirical interpretation of dream incidents" (p. 256); and in this respect he considers that "the work of Jung and his followers must be considered as an advancement on the purely Freudian conceptions." Again, with regard to the *libido*, he refers to "the primitive, undifferentiated, emotional 'driving force,' academically, and I think un-



justifiably, christened by the Vienna school as 'sexual' in a special sense" (p. 262). And again, on p. 271, he says, "Unfortunately the exponents of the Vienna school...invariably give the impression in their published works of sexuality in the limited sense, and generally in a very limited sense indeed."

These extracts will suffice to show that, although a good deal of space is devoted to dream interpretation, Dr Core maintains a very complete detachment from the analytical standpoint. In this matter, as in all others, Dr Core is free from any taint of diffidence or uncertainty. In fact, some hypercritical reader might even suggest that he is free from any taint of modesty: for the book is characterised throughout by a tone of assurance, if not of dogmatism, which would be more suitable to-day in a work on electricity than in one on functional nervous disorders. This is rendered a degree more noticeable than it might be by the highly theoretical character of the book; no examples to speak of are cited, and one cannot help wishing that Dr Core had taken the trouble to quote cases in order to elucidate his meaning, even if he considered them unnecessary to corroborate his statements.

If, however, the student makes a successful adjustment to these minor blemishes, he will find in this book a mass of suggestive and stimulating material. Whether he agree with Dr Core in the main, or whether he differ from him totally, or whether, like the present writer, he feel impelled to further study, he cannot fail to carry from it into his practice a very arresting clinical scheme, worked out with minute elaboration, and adhered to consistently. Probably the most satisfactory way of indicating the character of this volume is to quote *in extenso* from the preface this classification:

#### A. *Regressive.*

##### Hysteria.

1. Symptoms arising in the atmosphere of a recrudesced emotional tone and associated with behaviour determined in the atmosphere of an analogous emotional tone in early life characterised by an abnormal absence of control: *Primary hysteria*.

2. Symptoms arising in an atmosphere associated with discomfort in the broadest sense in any part of the body: *Secondary hysteria*.

3. Symptoms arising in the atmosphere of expectation:

(a) Of discomfort in any part of the body.

(b) Of symptoms or abnormal behaviour generally, determined at inception by any of the preceding mechanisms: *Tertiary hysteria*.

(*The Hyperthymic State.* This, as mentioned above, does not in itself constitute a functional nervous disorder; but it requires consideration on account of its influence upon certain of these disabilities. According as to whether the individual has never acquired emotional control in normal intensity, or has at one time acquired such control, the hyperthymic state may be referred to as *primary* or *secondary* respectively.

There is no standard of hyperthymia; it may be defined as the condition of any individual whose degree of emotional control is less than the normal for the community in which he lives.)

#### B. *Progressive.*

The sympathetic functional nervous disorders.

1. Symptoms arising in the atmosphere of an emotional tone, the appropriate conative aspect of which is prevented from developing: the *instinct distortion neuroses* or *dysthymias*:

(a) *Confusional* or '*centrifugal*' dysthymia.

(b) *Introspective* or '*centripetal*' dysthymia.

2. Symptoms arising in the atmosphere of dread: the *memory- or mnemo-neuroses*:

(a) The elements of the dread are logical; readily understandable by the patient and the generality of mankind: the *ordinary form of the memory-neurosis*.

(b) Illogical dread, the elements of which are entirely incomprehensible to the patient: the *obsessive form of the memory-neurosis*.

In general Dr Core's work is much more akin to the French outlook in clinical psychology than to the analytical, but it is work of an unusually high character on which he merits our warmest congratulations.

H. CRICHTON MILLER.

*The Care of the Adolescent Girl.* By PHYLLIS BLANCHARD, PH.D. (Kegan Paul, Trench, Trubner & Co. Ltd, 1921. Pp. xxi + 201. Price: 7s. 6d.)

This book deals with the problem of the adolescent girl from a psychological and philosophical standpoint; the author is actuated by a high ideal of womanhood, and by the obvious need in the present day for adjustment in the education and upbringing of girls.

She leads up to the main theme of her subject by reviewing various philosophical and psychological theories as a background to Freud's conception of the unconscious; in comparing this with the idea of the 'subconscious' formulated by von Hartmann, she omits to point out the fundamental difference in the two theories, which rests on the Freudian doctrine of repression.

Dr Blanchard's attitude to Freudian psychology is inconsistent, and it is easy to show that she has not a clear insight into the theoretical principles; on the other hand, when quoting records of cases, her comments and explanations are based for the most part on Freudian conceptions.

There are a number of inaccuracies and ambiguities in the text, for example the author professes to use Freud's phraseology when stating that 'a suppressed sexual impulse' 'had become displaced from the conscious to the subconscious strata of the nervous system.' This mingling of psychical and physical terms occurs several times, and suggests a lack of appreciation of the mind as a psychic entity, in which the unconscious plays the larger part and has no defined relationship to 'strata of the nervous system.' Again, she states that Freud's theory of *libido* is the 'simple statement that the motivating principle of all human activity is the procreative instinct'; this is untrue, and it is difficult to reconcile it with an understanding of the theory of repression and mental conflict as a cause of the psychoneuroses. It is amazing that the work of the Freudian school on the ego-instincts should still be ignored.

A further confusion of mental and physical processes is revealed in the description of sublimation as a process in which 'the energy of the libido is transmitted into higher nervous processes, and traversing neural pathways of association, reinforces the aesthetic creative impulses' etc.: psychoanalysis has shown that the aesthetic creative impulse is a sublimation of the sexual instinct, and is not merely reinforced by it. The author appears to use 'higher' in the sense of intellectual, in distinction to physical, as later on she speaks of libido as becoming 'converted downwards' and producing physical symptoms.

In dealing with the views of Maeder on the intuitive impulses of the unconscious the author holds that the ultimate salvation of humanity rests in

its power to follow these impulses. Exactly what is the relation of these intuitive impulses to the sexual instinct, which matures at adolescence, is not clear; apparently "the adolescent girl is unduly sensitive to this strange force within her being, because to her, much more than to her brother, is given the serious mission of transmitting it intact to succeeding generations." This 'strange force' seems to be a possession of the ovum rather than of the spermatozoa, and to be associated with a greater capacity for self-sacrifice and altruism; so far it has escaped scientific observation.

Dr Blanchard adopts Benjamin Kidd's ideal of women and in her enthusiasm for the sex wanders away from the reality revealed by psycho-analytical research to an ideal feminine personality, which suggests psychologically a masochistic goddess. To accept a position for the larger section of the community, which involves a 'bitter conflict' in adolescence, and subsequently a life of self-sacrifice, is unthinkable in an age of progress and freedom. The procreative act should have pleasure for the woman as well as for the man, and the self-sacrifice of maternity is only one aspect, which in itself brings gratification. Masochistic gratification is referred to in a later chapter, but is lost sight of in the preliminary discussion.

The chapter on the sex instinct contains some interesting reports given by a number of adolescent girls in answer to questions concerning day-dreams, erotic dreams, menstruation, etc.; the reader is struck by the absence of adequate sex knowledge shown, and the feeling of inferiority accompanying menstruation. The maternal component of the sexual instinct is obviously subservient at this stage; the author suggests that the modern girl is beginning to choose for her husband the man whom she wants to see as the father of her children. This statement does not bear closer investigation.

When dealing with the adolescent conflict, the author states that 'with the onset of pubescence and the beginning of menstruation, there is first brought into the focus of consciousness the radical difference between the male and female organisms, a fact which has hitherto been little considered by the girlish mind.' This conclusion has been proved to be erroneous countless times by psycho-analysts; a radical difference in the male and female is recognised in the first few years by the average child, and the repressed and unexplained recognition is intimately concerned with the adolescent conflict under discussion. The cases reported, with their well-marked feeling of inferiority demonstrate the truth of this observation; the author, however, adopts Adler's view and considers the masculine protest against organ inferiority as the psychological explanation.

Dr Blanchard shows a clearer and less hampered view of her subject when she touches on the relation of religion and art to sublimation, and recalls the primitive forms of worship and the origin of magic.

In the following chapter she quotes several interesting records of neurotic cases with analytical annotations, showing their dependence on anomalies in sexual development. It is an error to describe the transference of affection in adolescence to one of the same sex as a 'passing perversion,' for a homosexual transference of libido in adolescence represents a normal stage of development. There is confusion again in a reference to ambivalent forms of the Oedipus complex, by which the author appears to mean the transference of positive feelings to one parent, and negative to the other. This suggests that the significance of the term 'ambivalent' is not clear to her. A further statement, which cannot be overlooked, is to the effect that certain extremists

among psycho-analysts 'gravely urge' that 'the adolescent girl who finds the problem of controlling and sublimating her impulses too arduous, be allowed full satisfaction of the sexual instinct on the biological level.' It would be interesting to know to what school these analysts belong, for it is an untrue assertion of those who, using Freud's technique and accepting his theories, have the actual right to be called psycho-analysts. Such recommendations recall the 'wild analysis' described and condemned by Freud.

In spite of the numerous unsound and inconsistent statements which appear in the book, there is also truth and insight, and the reader is left with the impression that the aim of the author is more convincing than the means advocated to attain her end. She says, 'the adolescent girl's rebellion against the influences which tend to cramp her development is misguided by the adoption of a false set of standards, so that instead of seeking an expression of her own peculiar nature, and making her own unique contribution to the race, she has sometimes attempted to follow the man-made path instead of blazing the trail for herself.' The truth is obvious, but the evil is not rectified by preaching a doctrine of self-sacrifice on the one hand, and on the other hinting at a 'higher mission of guiding a civilisation that has been too long in the hands of men.'

At present hard and fast rules cannot be formulated for the upbringing of the child and adolescent, but many pitfalls will be avoided by early sex enlightenment, the avoidance of unequal treatment of the sexes in childhood, and the encouragement of a view of sexuality which unites the ideal and the physical; these principles combined with increased opportunities for sublimation and work for the welfare of the community should help to mitigate the conflict of adolescence, which tends to warp and impoverish the developing personality.

SYLVIA M. PAYNE.

## NOTES ON RECENT PERIODICALS.

*Journal of Mental Science*, July, 1921.

Both of the original articles in this number are from the hand of Sir Frederick Mott, the Morison Lectures on the Psycho-pathology of Puberty and Adolescence, and the second Maudsley Lecture which, apart from a short historical account of the Maudsley Hospital, is devoted to Sir Frederick Mott's recent researches on dementia praecox.

Both the Morison and the Maudsley Lectures deal almost entirely with Sir Frederick Mott's recent histological and biochemical researches in the changes in the sexual glands and central nervous system in cases of dementia praecox and congenital imbecility. In both conditions more or less regressive atrophy of the testes and ovary has been found in the great majority of cases examined, associated with arrest of spermatogenesis, on the one hand, and of maturation of the Graafian follicles on the other. In the central nervous system there is evidence of primary parenchymatous degeneration of neurones with glia cell proliferation. Researches into the bio-chemistry of the central nervous system in these diseases give evidence of diminution of neutral sulphur showing general inherent deficiency of oxidation processes, also a deficiency of organic phosphorus which may be correlated with the evidence of failure of nuclear phosphorus in the reproductive organs.

The regressive atrophy of ovaries and testes is not considered as the primary change in dementia praecox; Sir Frederick Mott considers that in this disease and in congenital imbecility there is evidence of a failure of vital energy of the cells of the whole body, manifested especially in the two most important to show symptoms, namely, the closely inter-related sexual organs and the brain. For the author mental processes are considered as subordinate to physiological processes and mental disorders are due to pathological physiogenic conditions.

*Journal of Mental Science*, October, 1921.

This number opens with an Obituary Notice by Dr Percy Smith of Sir George Savage, of whom there is also an excellent photograph. Dr Percy Smith has brought wide personal knowledge and heartfelt esteem to the writing of this article: it is a record of a good life well and fully lived.

Amongst the original articles the Presidential Address to the Medico-Psychological Association by Dr C. Hubert Bond is worthy of very careful study. Taking as his subject, "The Position of Psychological Medicine in Medical and Allied Services," Dr Bond sets out clearly the present legal restrictions in the treatment of mental disorders and the deficiencies and obstacles to progress. The need for the extension of the system of voluntary admission to county and borough asylums is first dealt with, followed by a short outline of the difficulties of defining certifiability, and the vagueness of uncertifiability as a guide to arrangements for treatment. The position is well summed up in the following sentence: "The truth is that against possible unauthorised detention, whether for personal profit or—as is much more likely—for the sake of carrying on treatment, the real protection, apart from the ordinary Common Law remedies, is not in forms and procedures, but in supervision (facility for inquiry and visitation) and power to take such action as seems called for at the hands of those who have the requisite experience and independence." Emphasis is laid upon the urgent need for amendment of the existing Lunacy Laws, to enable cases of acute and curable forms of mental illness to be treated for a probationary period of at least six months without the necessity for certification.

The second part of the paper is devoted to a consideration of the Report of the Consultation Council on Medical and Allied Services established under the Ministry of Health Act of 1919, which, as Dr Bond suggests, "affords a reasonably secure basis

on which we can formulate suggestions to meet any special facilities demanded for preventive, curative and custodial treatment of mental and allied disorders. To those, more noisy perhaps than numerous, for whom the Board of Control stands for all that is reactionary and inhuman, the breadth and wisdom of the reforms advocated by Dr Bond may perhaps make for enlightenment.

The remainder of this number of the *Journal* is devoted to four short papers read at the Annual Meeting of the Medico-Psychological Association, 1921. "The Problem of the Feeble-minded in South Africa," by Dr J. T. Dunston, is mainly devoted to administrative legislation and statistical considerations. Special reference is made to the Mental Disorders Act of 1916, which embodies very definite advances and far-reaching reforms. Interesting reference is made to the incidents of feeble-mindedness amongst the native populations of South Africa; referring to mental disorders the writer states that he has never seen, and, within his knowledge, no single case of true paranoia has been reported, amongst the native population.

"Mental Hygiene and Prophylaxis in France," by Dr H. Colin, deals also mainly with administrative and legislative problems. In France apparently, new legislation to place the treatment of mental disorders in line with modern requirements is still some way from the Statute Book. La Ligue d'Hygiène Mentale, founded in December, 1920, is apparently the centre for propaganda work for the initiation of much-needed reform.

"Legislative Restriction in connection with the Treatment of Incipient Insanity," by Dr Wilfrid Corden, Barcelona. This paper may be adequately summed up in one short extract. Lunacy Law in Spain "embodies all that red tape can do to hinder proper treatment of cases, and it presents therefore a problem which reaches a climax of complexity."

"The School Medical Service in Relation to Mental Defect," by Dr G. A. Auden. A presentation of the case of the school medical officer in relation to a unification of the Medical Services which deal with the various aspects of mental defects. The author emphasises the need for psycho-educational clinics for the examination of all children presenting abnormalities of educational progress or of conduct.

M. B. W.

*Journal für Psychologie und Neurologie* (Vol. xxvi).

Nos. 1 and 2. October, 1920.

O. L. Forel's psychological study, "Le Rythme," should be of interest to physicians who have been struck by the great, largely subconscious, influence of rhythm on the mind. He traces through different departments of individual and social life the various ramifications of rhythm, endeavouring to relate them to one another and to arrive at a synthetic presentation of the subject. The study falls into three parts: (1) physical and psycho-physiological rhythms, (2) rhythm in work and play; rhythm in music, (3) experimental data on the phenomena of rhythm; therapeutic considerations.

Dr H. Preisig contributes a paper on "Malformations de la moëlle épinière," in which he gives a detailed account of the case of a child suffering from multiple malformations. Appended is a plate showing sections.

E. Grünwald (Freiburg Nervenlinik) writes on infantile spastic paralysis illustrated by the case of two brothers in whom this disease occurred.

Nos. 3 and 4. January, 1921.

This double number contains the following papers: "On the histopathology and pathogenesis of amaurotic idiocy with special reference to changes occurring in the cerebellum," by Max Bielschowsky, illustrated by five double plates. "Localisation in the nerve centres of the optic muscles. Two as yet unknown centres in the human mid-brain," being an account of certain laboratory experiments by Dr Casimir Frank in the neurological clinic in Rome (illustrated).

Nos. 5 and 6. April, 1921.

The only article on human psychology is contributed by E. Beck on the subject of military misdemeanours during the war. He gives statistics of all such misdemeanours as are recorded of two regiments of Bavarian infantry, his diagrams showing that the number of delinquencies varied directly with the strain of long service. In an account of over a hundred cases observed by him in a field hospital he distinguishes psychopaths, feeble-minded, constitutional neuropaths and men suffering from war neuroses, and describes the type of misdemeanour and the character of the previous military record commonly met with in individuals of the different groups. He concludes his article with a note on the high proportion of misdemeanours committed by natives of the Palatinate, which he attributes partly to their natural temperament and partly to their proneness to alcoholism.

The rest of the number is devoted to papers dealing with experiments on carrier pigeons and on dogs.

Vol. xxvi.

Nos. 1 and 2. September, 1921.

This number contains the following papers: "Critical Notes," by O. Vogt, on the principles of the training of dogs; "Contribution to the theory of hereditary degeneration of the cerebellum," by K. Schaffer, illustrated by diagrams and plates. "On the nature and physiological significance of yawning," by Valentin Dumpert.

Nos. 3 and 4. January, 1922.

"The Dream as a Phenomenon of the Lowering of Consciousness," by Dr A. J. Kiewiet de Jonge. The author's thesis is that the dream and its peculiar characteristics may be explained quite simply as the result of a lowering in the degree of consciousness during sleep: that degree must be high enough for us to perceive the dream-images, but too low for external stimuli to wake us. As the level of consciousness sinks, memory-pictures gain in visual intensity and there is a corresponding decrease in correct perception of the external world. Thus we pass from true perception to illusion and finally to hallucination. The author expressly refrains from a direct criticism of Freud's theory of the dream, but on various points he would seem to differ fundamentally from Freud. Our forgetting of dreams is to be attributed to the weakness of impressions received in a low degree of consciousness; bizarreries and absurdities to the superficiality of association in that state. Considering the dream of "the burning child," quoted by Freud, he repudiates the idea that the father's vision of his dead child as alive was a wish-fulfilment; rather it was due to the fact that our lowered consciousness assimilates more easily insignificant impressions running in familiar channels than impressions of great affective value which have not yet been taken up into the mental content. He rejects the Freudian conception of the censor, on the ground that the most shameless wishes make their way into our dreams. Other points touched on are the duration of dreams, symbolism, anxiety dreams and morality in dreams.

"Psychogermination (connection between imagination and character-dispositions)," by Dr Valentine Ujhely. We have here a sketch, in English, of a system of laboratory experiments for the purpose of diagnosing certain latent faculties and dispositions of the individual. The operator "engraves" upon the mind of the subject a series of ideas, which are discharged by the latter, in an artificially induced hypnoidal state, through a stream of subconscious associations. The result of this "psychogermination" is taken to show to which of several categories the character of the subject is to be assigned.

In a paper on the extra-pyramidal symptom-complex, Dr H. Zingerle gives a detailed account, illustrated by photographs, of cases which have come under his observation.

## No. 5. February, 1922.

Valentin Dumpert, in a critical discussion on the so-called "finger-thumb reflex," to which attention was drawn by C. Mayer during the war, concludes that this is not a true reflex, but a "muscular co-ordination." A short paper on the biological significance of such a co-ordination is appended.

Dr Hans Berger-Jena gives the results of a series of experiments to register the effect of psychic influences on the temperature of the skin. A distinct rise of temperature was noted as a result of (a) direct hypnotic suggestion, (b) strenuous intellectual work, (c) strong emotion, (d) concentration of the subject's attention on the temperature of the skin at a given point.

August Forel elaborates and defends his hypothesis of "Psychenergie" as an explanation of clairvoyance and telepathy. (Cf. A. Forel, *Der Hypnotismus*, 1918, pp. 54-65.)

Otto Schiche contributes a paper on certain reactions to be observed in dogs in the course of experiments in training.

*Annales Médico-Psychologiques* (Series XI, vol. II).

## No. 1. June, 1921.

*Danger resultant de l'aliénation mentale chez les employés de chemin de fer.* (M. F. Pactet.)

Calls attention to the large number of railway accidents and the fact that employées are often retained in the service long after their mental condition has made them a source of danger to the travelling public—gives three examples and argues that mental examination is necessary.

*Les mélancoliques anxieux persécutés* (1). (M. André Ceillier.) (Completed in No. 2.)

A long article containing records of five cases—contends that the term *mélancolique persécuté* is used far too loosely and suggests that the term *mélancoliques anxieux persécutés* be confined to those who suffer from ideas of persecution unaccompanied by ideas of guilt but caused directly by the anxiety state.

*Un testament de persécuté.* (Drs Levet et Vernet.)

A case in which the courts upheld the validity of a will in opposition to the medical evidence of insanity.

*L'aboulie du neurasthénique d'après une auto-observation* (1). (M. Roger Dupouy.) (Continued and completed in Nos. 2 and 4.)

A long *auto-observation* of a student who broke down some time before an important examination and attempted suicide, then suddenly recovered and passed the examination with distinction but immediately after relapsed into a far worse mental state. The danger of allowing the wish to drive the body beyond its power of endurance is emphasised. The "doubling of the wish" is able to make up for shortage of power until the day when, exhausted by effort, beaten by difficulty of the task, the wish does not carry power with it and complete collapse ensues.

*La tension artérielle habituelle chez les mélancoliques anxieux.* (M. G. Maudascher.)

Presents tabular statements for 24 cases and concludes that the anxiety is neither the cause nor consequence of hypertension.

## No. 2. July, 1921.

*Les mélancoliques anxieux persécutés* (2). (M. André Ceillier.)

See No. 1 above.

*L'aboulie du neurasthénique d'après une auto-observation* (2). (M. Roger Dupouy.)

See No. 1 above.

*Note complémentaire sur le traitement de l'épilepsie par la phényléthylmalonylurée.* (M. Maurice Ducosté.)



Refers back to a preliminary note on the use of luminal in epilepsy (*Ann. Med.-Psych.* X.T. XII, 1920, p. 433) discusses the use of Luminal and Gardenal in epilepsy and reaches the conclusion that in Phenylethylmalonylurea with Belladonna and Caffeine we have the best form of treatment of epilepsy. The paper is followed by a lengthy discussion on the relative value of various drugs in the treatment of epilepsy.

*Quatre cas d'acidose chez des mélancoliques.* (Mlle M. Badonnel.)

Concludes that acidosis and anxiety are not cause and effect.

*Variations de la pression artérielle d'après certains états émotifs.* (MM. G. Naudascher et E. Mortimor.)

Concludes that the emotional state and pressure variations are simultaneous results of disturbance in the sympathetic system.

#### No. 3. October, 1921.

*Le service d'anthropologie pénitentiaire belge.* (Dr Werner Hoedemakers.)

An interesting account of a valuable Belgian experiment on the classification of delinquents by mental experts, followed by differential treatment with a view to reinstating many as useful members of society. The central idea in the scheme for reclamation is that the delinquent should work during his imprisonment for money to indemnify the injured party, to provide support for his family or to be given to him on liberation.

*Les conséquences de la loi de réforme et pensions du 31 Mars. 1919 dans le domaine des maladies mentales.* (Dr Henri Colin et Dr E. Minkowski.)

Nine outstanding cases in which the law occasioned unfair treatment are given. There should be rigorous discrimination between troubles congenital or pre-war and those acquired or aggravated during service with the colours.

*Un cas de délire télépathique.* (Dr A. Starobinski.)

Describes the case and argues that human personality is a psycho-organic machine, affective or instinctive, whose energy is canalised and directed by an ethico-logical governor imposed by society. In neuro-pathological subjects however the governor is too weak and allows energy to escape into new channels which with every repetition of the delirium become more and more fixed.

*Les tendances et l'esprit du code civil allemand en matière psychiatrique.* (Dr Maurice Brissot.)

Deals with difficulties arising from the continued operation of German law in Alsace.

*Psychose hallucinatoire chronique.* (Dr Maurice Brissot.)

Ideas of negation proceed from those of persecution and lead to ideas of grandeur.

*Mélancolie anxieuse et syndrome de Basedow.* (Dr Maurice Brissot.)

*Dissociation psycho-organique, intermittences et périodicité au cours de l'évolution des formes mentales prolongées de l'encéphalite épidémique.* (M. Georges Petit.)

The early stages in which the symptoms are purely psychical would seem to be a "signal of alarm."

*XXVe Congrès des aliénistes et neurologistes de France et des pays de langue française* (1). (M. Louis Parant.) (Concluded in No. 4.)

A brief resumé of the proceedings.

#### No. 4. November, 1921.

*La conférence de Nicolas Sténon sur l'anatomie du cerveau. L'esprit scientifique moderne au xvii<sup>e</sup> siècle.* (M. Paul Sainton.)

An appreciative review of pioneer work on the structure of the brain.

*Aliénation mentale et loi du 31 Mars. 1919 sur les pensions militaires.* (M. P. Beaussart.)

*L'aboulie du neurasthénique d'après une auto-observation* (3). (M. Roger Dupouy.)

See No. 1 above.

*Insuffisance hépato-rénale et altérations sanguines dans la mélancolie.* (M. René Targowla et Mlle Badonnel.)

A brief résumé of previous work with bibliography, followed by accounts of eight recent cases.

*Hallucinations lilliputiennes au cours de la démence.* (M. A. Prince.)

Three very different cases described.

No. 5. December, 1921.

*Folie, crime et alcool.* (Dr Legrain.)

An argument for abstinence now and prohibition later concluding—"Against a force as destructive as alcohol would it be possible to secure prohibition? The United States has replied: the asylums are empty."

*Les séquestrations volontaires et les psychoses de la liberté.* (M. Paul Courbon.)

Two cases—happy, well behaved, hard working and apparently normal in detention but suffering violent relapse on release.

*Le manie chronique.* (M. Franco da Rocha.)

Agrees with Esposito in criticising Specht and holding that although mania and melancholia may periodically present states of delirium resembling the delirium of paranoia they can be readily distinguished from it.

*Traitement des états mélancoliques par le cacodylate de soude à haute doses.* (MM. Rogues de Fursac et Abély (Xavier).)

*Paralysie générale et traumatisme.* (MM. Pactet et Robin.)

*Conscience partielle et amnésie retardée dans les "absences" épileptiques.* (M. E. Mortimor.)

*L'expertise mentale. Les "circonstances atténuantes" d'ordre psychique.* (Dr Hamel.)

R. J. B.

## CORRESPONDENCE.

VIENNA, January 18th, 1922.

[Translation.]

THE EDITOR, *The British Journal of Psychology* (Medical Section).

DEAR SIR,

I write with reference to a review of *A Young Girl's Diary*, prefaced with a letter by Siegmund Freud, translated from the German by Eden and Cedar Paul, 1921—a review by Mr Cyril Burt. Since I was the editor of the *Tagebuch eines halbwüchsigen Mädchens*, Psychoanalyt. Verlag, Quellschriften zur seelischen Entwicklung, No. 1, I venture to hope that you will be good enough to publish the subjoined reply in your esteemed *Journal*:

1. As a person whose name is well known in the field of psycho-analytical research, and as one who has the honour of Prof. Freud's acquaintance, I give my direct assurance that *the Diary is a genuine record, and that it was printed without alterations*. The only reservations this statement requires are that the names of persons and places were changed and a modification was made as to the status of the diarist's father—simply in order to conceal the identity of the writer.

2. The natural developmental changes shown in the record during the three and a half years for which the diary was kept, have left absolutely no doubt in my mind that the entries were actually made *at the time of the experiences which are noted* and that they were not posted up from memory at some subsequent date.

3. For the rest, I may refer to the Preface to the third German edition of the *Tagebuch* (now in the press). Here I give concerning the diarist certain details likely to be of value to those who use the book for purposes of serious study. I also discuss certain criticisms. Finally, I assume entire responsibility for the authenticity of the record.

With sincere respect, I remain,

Yours faithfully,

[Dr] HERMINE HUG-HELLMUTH.

## COMMENTS BY MR BURT.

Dr Hug-Hellmuth's assurances that she herself was the editor of the *Tagebuch*, and that, judging from the development shown by the record, she believes the entries to have been actually made at the time of the experiences which they describe, will be very welcome to the readers of the diary, as they certainly are to its reviewer. All who have read its pages will look forward with the greatest interest to the additional details she has now been persuaded to communicate in the forthcoming edition of the book.

After forming his impressions of the diary, the reviewer wrote to Dr Hug-Hellmuth. Owing, however, to her absence in Berlin, she was unable to reply until the review had been set up in type. She was then good enough to write at length; and, in answer to certain specific questions, stated that both the diarist and the diary were now unhappily inaccessible; she explained that the original of the diary had been destroyed, and that the editor's own manuscript

copy alone was in existence; that the editor had not become acquainted with the diarist until the girl was 19 years old, and that she had not received the diary until the girl was 21. Certain details which she disclosed as to the subsequent history of the girl confirmed, at least in the mind of the reviewer, the suspicion that the girl herself was of an emotional disposition and of a somewhat unusual temperament. Since throughout her letter Dr Hug-Hellmuth referred to the editor of the book as a third person who desired (for certain natural reasons) to withhold her name, the standing of the editor still remained unknown; Dr Hug-Hellmuth, however, added that the editor "affirmed, in view of the marked changes in the handwriting, that the diary was not written retrospectively."

These further details, based as it seemed chiefly on indirect information and recollected impressions, seemed to call for no serious modification in the discussion of the volume, particularly as that discussion was already in page-proof; the reviewer, however, recorded them in a later notice of the book in another periodical.

It is hardly necessary to repeat what has been sufficiently emphasised in the review itself, namely, that never for a moment was it the reviewer's intention to cast any doubt either upon the good faith of the editor, or, indeed, upon the value and interest of the general substance of the book.

CYRIL BURT.

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